

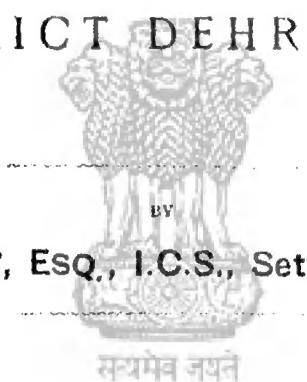
FINAL SETTLEMENT REPORT

OF THE

DEHRA TAHSIL

IN

DISTRICT DEHRA DUN.



G. R. DAMPIER, ESQ., I.C.S., Settlement Officer.



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FROM

R. W. GILLAN, Esq., I.C.S.,

SECRETARY TO THE BOARD OF REVENUE,

UNITED PROVINCES,

To

THE CHIEF SECRETARY TO GOVERNMENT,

UNITED PROVINCES.

Dated Naini Tal, the 16th September 1907.

SIR,

DEPARTMENT I.

Present:
THE HON'BLE
MR. A. W. CRUICKSHANK,
C.S.I.

I AM directed to submit, with a review by the Board, Mr. Dampier's report on the revision of settlement recently concluded in the Dehra Dun district. Jaunsar Bawar was not included in the operations, and the report is thus confined to the single tahsil of Dehra. The greater portion of the area lies in two basins, which coincide practically with the parganas of the Western and Eastern Dun, the former draining into the Jumna and the latter into the Ganges. But the tahsil runs also some little distance into the hills, and there is a hill tract and a submontane tract, each with very distinct characteristics. It is unnecessary to go into the details of the circle classification, but generally it may be noted that the soil is richer in the Eastern Dun, though the climate is inferior. The best land in the tahsil lies on what has been designated the Dehra plateau, and the advantages of proximity to a considerable town have led to the separation of part of this area as a suburban circle. The submontane tract contains little but poor stony soil, and in the hills there are only small areas of terraced land and the rough occasional cultivation known here and elsewhere as *khil khet*. The rainfall is heavy, but so porous is the soil that no good cultivation is possible without irrigation. The population consists chiefly of Brahmans and Rajputs, most of them apparently of hill origin, but there is a large number of mixed castes who have come from all parts to settle in the vacant lands. There are many large grants and tea gardens, but the hopes once entertained that the Dun would become an English colony are not being fulfilled: Europeans have lost a third of the land held by them at last settlement, and prices have been so low that the tea companies have found it hard to make a profit. The indigenous proprietors appear to do well. Banias, it is true, have increased their holding 57 per cent., but their gains have chiefly no doubt been at the expense of the Europeans, and they still have no more than 10·89 per cent. of the total area. As the result chiefly of the acquisitions of one capable man, the Rajputs have 27 per cent. more than at last settlement, while the Brahmans have lost 6½ per cent. The area held by occupancy tenants, whose original status, as will appear later, approximated at least to that of under-proprietors, has declined 26 per cent., but this decrease has occurred in the area held by tenants recorded as occupancy at last settlement, and is by no means unusually high: there has been no formal revision of records, and consequently no accretion to the recorded occupancy area, but if the area held for over twelve years is added, the total is very much the same as at last settlement. Some of the new proprietors have been unscrupulous and oppressive in their attempts to get rid of their occupancy tenants, but in many places tenants are at a premium, and on the whole the relations between them and the landlords are good.

2. The striking feature in the history of the district is the steady advance in prosperity shown at every settlement. The population soon after its annexation was only some 17,000: it is now 117,438 or six and a half times as numerous. And the revenue has expanded in even a larger proportion. In 1816 to 1819 it was

Rs. 11,000 or Rs. 12,000 : Mr. Dampier's proposals come to Rs. 1,14,286. With the revisions by which the enhancement has gradually been effected it is unnecessary to deal in detail, but it should be mentioned that in 1830 the settlement was made *ryatwari*; the rights conferred were not properly understood or insisted upon, and at the next settlement there were only six cases of cultivators who desired to be recorded as subordinate proprietors, so that there was little difficulty in reverting to the *status quo*, but the incident illustrates the *quasi-proprietary* status of the old tenantry of the Dun. The last settlement was made in 1883 to 1885 by Mr. H. G. Ross, who for eleven years had been Superintendent of the Dun and brought therefore an exceptional knowledge of local conditions to the work of assessment. He imposed an enhancement of 62 per cent., but cultivation had expanded 47.66 per cent., and the incidence of competition rents had risen 36 per cent. and there is no doubt that his revenue was moderate : the question was in fact argued whether it was not too lenient. This conclusion was not accepted by Government, but on the ground that rapid improvement was to be expected the settlement was confirmed only for twenty years.

3. During this period the tahsil has continued to prosper. Population is 28.44 per cent. higher than at last settlement. Cultivation has increased 12.09 per cent., chiefly in the Eastern Dun, where the expansion in some of the waste land grants has been remarkable. Irrigation appears from the figures to have fallen off 27 per cent. (the percentage in paragraph 22 of the report refers only to irrigation from Government canals), and the Settlement Officer now refers to increasing shortage of water and restriction of irrigation caused by an enhancement of the water rates. But the effects of the increased rates have not yet had time to establish themselves, and it is not clear why, except in a few villages, the deficiencies in the supply, which the Settlement Officer brings to notice should be more marked than they were at settlement. In his pargana reports the Settlement Officer noted that there had been no real permanent decrease in the Eastern Dun ; in the Western Dun it was said to be doubtful whether there had been more than a slight decrease. At last settlement nearly every field that could be irrigated under the most favourable conditions was classified as "wet," and the conclusion of the matter seems to be that the Settlement Officer has allowed more liberally for defects than his predecessor. The areas under wheat and rice, which are the paying crops of the district, have risen 21.88 and 23.43 per cent. The main impetus to the progress of the district has come, however, from the growth of Dehra and Mussooree and the construction of the Hardwar-Dehra Railway. The expansion of the towns is sufficiently illustrated by the fact that in the last twenty years the municipal income has trebled and these centres of employment are undoubtedly a considerable factor in the prosperity of the district. The railway has benefited the land, whether cultivated or forest, by providing an outlet for its produce, and more particularly for rice and timber. The prices of wheat and rice, the crops which the cultivator sells, have risen a third, and there has been a great increase in rents. Occupancy rents are 22.17 per cent. higher than at settlement, but occupancy enhancements are artificial, and are not certainly related to values ; competition rents have risen no less than 52.27 per cent. The figures given in paragraph 30 show that the demand has practically doubled, and the collections are 125 per cent. higher than at last settlement. The accuracy of the old figures is doubtful, but there can be no doubt that there has been a very large increase in the assets. If the non-occupancy rents are taken as a fair indication at least of the *relative* value of land at two periods, then the increase of 52 per cent. in the incidence, coupled with an extension of 12 per cent. in cultivation, is equivalent to an increase of 70 per cent. in the assets ; and this does not take into account any possible increase in the sayar income, which is important.

4. The assessment of the Dun has been complicated by the peculiar conditions of the tract, and the amount or difficulty of the work cannot fairly be gauged by the amount of the revenue imposed. The circle classification requires little

comment : at last settlement no circles were formed in the Eastern Dun, and, though it was difficult to get a thoroughly satisfactory classification, there are such large differences in the character of various tracts that the formation of circles was clearly desirable. As regards the soil classification, the Settlement Officer was certainly justified in omitting consideration of natural soils in the *goind* ; he has discarded also the distinction of *kyari* or fully irrigated land, because a distinction into two grades of irrigated land was not satisfactory, and has dealt with variations in the quality of irrigation by adjusting his assets where necessary ; and a good deal of what was classed at the previous settlement as *dakar* or clay was in accordance with its natural quality transferred to other classes. Thus the soil areas of the two settlements (paragraph 32) show considerable differences, but the increase in the *goind* area is misleading, as at last settlement, in order to reduce the assets, much land which had been demarcated under that name was subsequently, when rates were worked out, lumped up with the natural soils. It is clearly better, however, to have the correct areas stated and to put down the proper assets. The circle rates, which are useful as a standard in the valuation of all but the non-occupancy area, i.e. three-fourths of the whole, were not worked out without a good deal of difficulty. In the first place soil rates are obscured by the influence of the other factors which Mr. Dampier enumerates in paragraph 34 of his report : and, though irrigation is a matter which every settlement officer has to take into account, it is plain that, both because of the nature of the supply and of the rapid variations in level, the effects of irrigation are much less uniform than usual : the liability to damage by wild animals is also a factor of exceptional importance. Secondly, the materials with which the Settlement Officer had to work were somewhat intractable. Ordinary competition rents were found as usual to be an unsafe basis for valuation rates, and in the Dun there are peculiar rents, such as the progressive rents in the Eastern Dun, starting at a nominal sum with the object of encouraging settlers, which are no indication of the value of land ; the same remark applied also to the recorded rents in tea gardens since the tenants pay for their land partly in cash but partly also in services rendered to the landlord. The great lacuna, however, is in the case of occupancy rents. It has been noted that occupancy tenants occupy a peculiar position ; they were allowed at last settlement a deduction of 12½ per cent. as compared with circle rates, and, though the landlords have done their best in some cases to oust them, they have seldom tried to enhance their rents. There is a fair amount of new occupancy land, generally the most trustworthy basis for standard rates, but there is a custom of taking a *nazrana* and permitting the acquisition of occupancy rights at the old inadequate rates which puts many of these rents out of court. Altogether therefore the Settlement Officer had unusually scant materials on which to base his rates, but by a comparison of the results obtained in various ways—by the selection of typical and fairly rented fields, enquiry from landlords, and the tabulation of rent-rolls classified to show the periods when the rents were fixed, it was possible to determine the general soil values with some confidence. In three circles where separate rates had to be fixed for grain-rented land, the problem was to ascertain the value per acre of each kind of crop, and then strike an average on the typical rotation for each soil ; thus the rate for second class *sankra*, for example, would be worked out as *tor + fallow + mandua*³. In this process the ledgers of trustworthy patwaris were consulted, the opinion of respectable landlords taken, and the results checked by the inspection of private account books and comparison with cash rents where available. As compared with cash rents the valuation at circle rates is 16 per cent. below the non-occupancy, 45 per cent. above the occupancy. In the grain-rented area the incidence of the valuation coincides practically with the incidence of recorded rents in 1312-1313 fasli, and is only about 5 per cent. above the average of the last ten years. The same variations in the different factors influencing rent, which made it difficult to evolve soil rates, necessitated considerable latitude in their application. But the incidence of accepted assets (appendix VI) or Rs. 4·06 is very nearly the same as the incidence Rs. 4·14, of the valuation,

and it appears that the circle rates, though liable to more variation than usual, and not more, as Mr. Dampier says, than norms towards which the village rates will approximate so far, and only so far, as the varying circumstances of each village permit, represent the fair value of the average quality of each soil.

5. To turn to the actual assessment. The area accepted is 7.43 per cent. below the total area in holdings, and 1.01 per cent. below the cultivated area in 1812-1813 fasli. It is in excess of the quinquennial average and 6 per cent. above the decennial average, but the excess is accounted for by the still continuing expansion of cultivation, and the area assessed is fair and moderate. The incidence of the accepted non-occupancy rental is 11.28 per cent. below the incidence of the rents recorded and 6 per cent. above the incidence of the valuation. The Settlement Officer has dealt very gently with occupancy rents for his proposals involve an enhancement in the incidence of only 23 per cent., leaving occupancy rents still 15 per cent. below the standard of circle rates. The peculiar history of occupancy rights in this district, however, must be borne in mind. It is clear from paragraph 59 of the report by Mr. A. Ross, that the intention was that the rents of the old occupancy tenants, i.e. those who had held before 1830 and had been treated as proprietors, should not be liable to enhancement, and it was because these tenants were not distinguished from ordinary occupancy tenants that they lost this privilege. The Board are not certain that it would now be possible to discriminate such tenants or give them any special status, but it is clear that they should be leniently treated. Further Mr. Dampier points out that a large proportion of the occupancy tenants are to be found in the sub-montane and hill tracts, the poorest parts of the districts, and the old rents are so low that an immediate enhancement to full circle rates would have been ruinous to the tenants. Altogether therefore the leniency he has shown is fully justified. The total accepted cash rental, if allowance is made for occupancy enhancements, is 6.64 per cent. below the recorded collections of 1807 to 1811. The accepted assets of proprietary cultivation coincide practically with the valuation. The accepted rental of grain-rented land is 11.36 per cent. below the standard rental, and its incidence is exactly the same as the incidence of the average recorded during the last ten years. The grain records, Mr. Dampier says, are fairly trustworthy, but certainly do not exaggerate the returns. The gross assets of the area accepted in holdings are Rs. 3,14,887, plus Rs. 1,769 for land out of cultivation, but there are deductions of Rs. 3,465 on account of damage by wild animals, &c., reducing the amount to Rs. 3,13,191, the incidence of which on the accepted area is Rs. 4.04. For ordinary *sayar* the considerable sum of Rs. 11,055 is added and the incidence on cultivation is then Rs. 4.07. Double the incidence of the old revenue on cultivation and ordinary *sayar* is Rs. 2.14: the present incidence is 90 per cent. higher and though the old incidence was distinctly low, it is clear that the assets take full account of the improvement that has occurred. On the other hand, when Rs. 29,589 are added as income from sal forests, the grand total is Rs. 3,53,835; the ten years' average of collections is Rs. 3,29,257 or only Rs. 24,578 less, and the valuation of proprietary cultivation which does not contribute to collections is Rs. 75,175, while the occupancy rental has now been enhanced Rs. 4,610; thus the accepted assets are fully supported by recent actuals. The assessment of the sal forests has been a difficult task. Briefly the Settlement Officer first decided by careful inspection the true area under sal and the stage to which, regard being had to present quality and soil, the forest would likely attain within the period of settlement; he then calculated the deductions to be made for distance, inaccessibility and encouragement of sylviculture, and he checked the results with the figures of actual sales of similar forests in the neighbourhood. The assumed annual profits are Rs. 29,589, compared with Rs. 20,995 at settlement, and as 47.83 per cent. of the assets is taken as assessed as against 39.89 per cent., the revenue on this account has been enhanced 69 per cent., 45 per cent. in the *khalsa*, and 117 per cent. in the revenue-free mahals. It does not appear how much of the rise is due to an actual increase in value and how

much to differences in the method of valuation, but Mr. Dampier has shown in his pargana reports that the valuation of last settlement was much too low; in the Western Dun it is said that the actual assets during the last twenty years have certainly been 4 lakhs, while Mr. Ross assumed only Rs. 1,76,320, and assessed Rs. 66,400 or Rs. 3,320 a year; in the Eastern Dun similarly, actual assets have probably been 1½ lakhs of which the revenue has been only 11 per cent. The annual value now assumed is very near the actual average of the last twenty years. The total revenue at 45·66 per cent. of the assets comes to Rs. 1,52,405, an enhancement of 74 per cent., but the increase is largest in the nominal assessments of revenue-free estates, which for some reason were extremely lenient at last settlement, and the enhancement in the real revenue is from Rs. 68,675 to Rs. 1,14,286 or 66·42 per cent. In view of the large enhancement a low percentage was inevitable, and the principles followed by the Settlement Officer (paragraph 45) in fixing his proportion of revenue to assets are sound. Considering the small margin of profit, and the probability that a large enhancement would involve the management in difficulties, the Board consider the lenient treatment of the tea gardens was fully justified. But the whole of the new revenue will not be collected at once. In the first place there are still grants the term of which has not expired and which will not actually be reassessed for some years to come. Following the procedure adopted at last settlement however Mr. Dampier has calculated what the assessment should be, and the totals already given include for these grants Rs. 4,045 in the old revenue and Rs. 8,125 in the revenue proposed. Thus for other revenue-paying mahals the enhancement is from Rs. 64,630 to Rs. 1,06,161 or 64·2 per cent. This enhancement, again, has been graduated under the rules for progressive enhancements: and the first step being to a revenue of Rs. 85,242, the immediate enhancement on the revenue of Rs. 64,630 is 31·9 per cent.

6. The assessments, on the whole, have been well received and few appeals have been filed: it is evident also that the assumed enhancement of occupancy rents can be imposed without difficulty. The total cost of the settlement has been Rs. 86,199 compared with the Director's estimate of Rs. 32,000, but the latter sum, as Mr. Dampier points out, scarcely covered his own pay for the sanctioned period of eighteen months. The expenditure was carefully checked, and the Board do not see how it could have been cut down. For one thing the maps were found to be much more incorrect and the patwaris more inefficient than had been anticipated. A good deal also has been secured for the money beyond the revision of the assessments. A new record under sections 84 and 85 of the Revenue Act has been prepared, the legal necessity of which cannot have been foreseen in the forecast prepared before the new Revenue Act was passed, and the maps and papers have been much improved. It was the record work, in fact, which necessitated the retention of a considerable staff for eleven months after the work of assessment was complete. It is suggested, however, (paragraphs 31 and 54) that the cost was raised, and certainly operations were impeded, by a certain omission in communicating orders regarding the preliminary arrangements for a revision: the Board are not now personally concerned with what happened in 1902, but they think it necessary to make a few remarks on this subject. The Settlement Officer says that the Director recommended that, though no attestation or resurvey was necessary, the patwaris should be put through a preliminary course of instruction and the maps brought up to date in the cold weather of 1903-4: and he considers it unfortunate that, though the Board accepted his proposals, the second recommendation was not communicated to the district officer. It might have been well to mention the matter specifically, but I am to point out that the Director's forecast had been prepared in personal consultation with the Superintendent of the Dun, and as it came up through the Commissioner it was no doubt considered unnecessary to communicate in detail what the Board had approved. Further, Mr. Dampier was informed in May 1904 that he would be appointed Settlement Officer. He had time therefore to see how matters stood, but he was very much occupied with important municipal work.

This, however, is a small matter. Mr. Hardy, who passed all the assessments, left it on record that Mr. Dampier's work was marked by insight, care and sound judgment. The Board as now constituted would add that the operations, though on a small scale, gave numerous opportunities for stumbling, and Mr. Dampier has shown much tact in carrying the people with him and surmounting the difficulties; they have no doubt that he has made a good settlement under difficult conditions. The recommendation in the Board's notes on the pargana reports was that, except in the case of one village, Kandauli, which for special reasons was settled only for three years, the settlement should be for thirty years, and I am now to ask that formal sanction may be accorded to this proposal. If this proposal is approved, the settlement of the tahsil will expire on 30th June 1936. With regard to pargana Jaunsar Bawar in tahsil Chakrata, a tract where a revision was not justified on financial grounds, the settlement was to be extended for thirty years (G. O. no. 4151 dated 14th December 1901). The Government of India suggested that the extended term should be so determined that its expiry should synchronize with the expiry of the new settlement of the Dun proper (G. O. no. ⁵⁵⁶_{1-62F} dated the 24th February 1902), but the Board, in their letter no. ³⁰²_{1-391A} of 7th March 1902, pointed out that this course would be inconvenient. The original period of the old assessment expired in 1904, and I am now to recommend that the settlement of the pargana be extended by thirty years, to expire on 30th June 1934.

I have the honour to be,

SIR,

Your most obedient servant,

R. W. GILLAN,

Secretary.



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FINAL SETTLEMENT REPORT OF TAHSIL DEHRA, DISTRICT DEHRA DUN.

CHAPTER I.—GENERAL DESCRIPTION OF THE DISTRICT.

1. DEHRA DUN, the most northerly district in the Meerut Division, comprises two distinct tracts:—

The Dun proper with its girdle of mountain ranges, and Jaunsar Bawar, a hill pargana to the north-west. The first of these tracts forms the Dehra Tahsil, the second the Chakrata Tahsil.

With the latter this report has no concern, as the settlement in that sub-division has not been revised.

The Dehra Tahsil is bounded on the north by the Himalayas, on the south by the Siwaliks, on the west by the Jumna, and on the east by the Ganges.

The highest point in the valley—in the vicinity of Dehra itself—is 2,369 feet above sea level; in the hills is Landour, over 7,000 feet above sea level.

The valley is divided naturally into basins, of which the eastern basin is drained by the Song and Suswa into the Ganges and the western by the Asan and its affluents into the Jumna.

2. The total area of Dehra Tahsil is 710 square miles, out of which 290 square miles are covered by Government forests. The greatest length of the valley is 45 miles and its width varies from 15 to 20 miles.

3. The character of the soils will be dealt with in more detail in Chapter IV; here it is sufficient to note broadly their general disposition.

The sub-soil is everywhere boulders and shale, but the depth at which this is found varies enormously. In some places deep pockets of rich soil have to be penetrated before the substratum is reached, in others, it is found a few inches below the surface. In the plains portion of the Tahsil the trend of the soil is from clay on the east through a rich loam in the centre of the tract round Dehra to lighter loam as the Jumna is reached.

In the submontane and hill tracts, which form the largest part of the tahsil, the prevailing soil is of the poor stony type known as *Sankra*.

Viewed from the Mall at Mussoorie the surface of the Dun appears level enough. Closer inspection reveals that it is seamed and cut up in all directions by the numerous mountain torrents (*rao*) and streams that drain the bases of the Himalayas and Siwaliks.

4. Excluding the low-lying forest and riverain tracts, which are very feverish in the rains and early cold weather, the climate of the rest of the district is unusually healthy. The soil is porous and consequently drains well, while owing to the fact that the height above sea level varies, as previously stated, from 2000 feet in the valley to over 7000 feet in Landour practically any degree of temperature that is desired can be obtained. In Dehra itself the mean temperature varies from 37 degrees in winter to 105 degrees in the middle of the hot weather.

5. The average rainfall for the last twenty years according to the readings taken at the Great Trigonometrical Survey Office has been 84 inches.

6. The Dehra Tahsil is subdivided into two parganas, known as the Eastern and Western Dun. The limits of these correspond roughly with those of the two basins into which the valley is naturally divided; the actual boundary line is composed of the Rispana and Sukh Rivers, which flow slightly to the east of Dehra city.

The Tahsil contains 415 villages and 644 mahals.

7. So far as roads go, communications still leave much to be desired, particularly in the Eastern Dun. In the Western Dun the main artery of traffic is the Dehra-Fatchpur-Chakrata road, which is now metalled and bridged throughout.

Situation, boundaries, river and drainage system.

Area.

Soils.

Climate.

Rainfall.

Administrative subdivisions.

Communications.

The Fatehpur-Chakrata section of this road is part of the Saharanpur-Timli-Chakrata road constructed in the seventies at great expense and now practically abandoned, so far as this district is concerned, but for this small section.

The other great line of communication is the Assarori-Debra-Rajpur road. Since the railway was opened in 1900, the portion of this road lying below Dehra is less frequented; on the other hand above Dehra the traffic has increased and is increasing daily. Several rival schemes for quick transit on this section of the road are now before Government, the most promising being an extension of the existing broad gauge railway up to Rajpur. There is no completely bridged and metalled road in the Eastern Dun.

The nearest approach to it is the Dehra-Hardwar road. This is, however, only metalled for the first ten miles out of Dehra, and the most important bridge on it—that over the Suswa at Kansrau—which was swept away some time before 1874 has never been rebuilt.

The remainder of the roads in the Dun are all unmetalled and owing to the sandy stony nature of the soil and the sharp declivities and gradients caused by the numerous streams and torrents that seam the surface of the Dun, their maintenance in anything like good order is a task beyond the meagre resources of the District Board.

The greatest improvement in communications that has been made since last settlement has been the opening of the Hardwar-Dehra Railway in 1900. This has thrown open to colonization many of the larger grants in the eastern pargana, stimulated the export of rice, timber and lime, facilitated the import of food grains, and generally improved communications between headquarters and the eastern pargana. Its utility in the latter respect will be increased ten-fold when the Song river is bridged. A bridge is at present in course of construction above Gohri Ghat, the bulk of the cost of which is being defrayed by a Bengali millionaire. The bridge will only be available for light carts, and it is to be regretted that Government could not see their way to allot sufficient funds to make up the sum requisite for building a bridge suitable for every class of traffic. However, to use a homely proverb, "half a loaf is better than no bread" and even a light bridge across the Song will be of the greatest value in the development and administration of the Eastern Dun.

Towns.

8. There are only two real towns of any importance in the Dun—Dehra itself, and Mussoorie-cum-Landour—the famous sanitarium on the outer range of the Himalayas. Towards the east of the Tahsil, the influence of Hardwar makes itself largely felt, but as that town is situated almost entirely in the Saharanpur district, any description of it here, would be out of place.

Both Dehra and Mussoorie are too well known to require any detailed description. The following figures, however, exhibit the rapid extension that has taken place in them within the last 20 years.

Year.	Mussoorie.			Dehra.		
	Municipal income.	Municipal expenditure.	Population.	Municipal income.	Municipal expenditure.	Population.
1885	Rs. 32,020	Rs. 31,565	7,662	Rs. 15,173	Rs. 13,866	18,959
1904-05	... 1,26,267	... 1,38,948	14,689	... 64,447	... 65,697	24,039
Increase or decrease per cent.	+ 294.15	+ 340.20	+ 91.71	+ 324.75	+ 391.52	+ 26.79

The opening of the railway has played a considerable part in the development of both towns, Mussoorie having now become easier of access than any other of the hill stations in the north of India.

Other causes besides the railway have contributed to the development of Dehra. Even at last settlement and before, Dehra had been selected by Europeans of the small pensioner class as their final home and this tendency shows no signs of abatement. In addition, a second battalion of the 2nd Gurkhas has been raised, and under Lord Kitchener's new reorganization scheme, the 9th Gurkhas have been located in the close vicinity of Dehra and two batteries of mountain artillery will also be stationed in the same neighbourhood. Besides this, the Imperial Cadet Corps and numerous scientific Departments of the Government of India, have chosen Dehra as their headquarters.

The economic influence of these towns on the district is very great. The annual influx of numerous well-to-do holiday-makers, the large sums expended on carting material and stores from Dehra to Mussoorie and Chakrata, the activity in the building and allied trades, promoted by the ever-increasing demand for house accommodation; the numerous avenues of employment afforded by the many business houses springing up in both towns, have brought money into the district and materially raised the standard of comfort.

Consequently although there are practically no trades or manufactures within the Dun, the condition of the non-agricultural classes is distinctly above that prevailing in ordinary purely agricultural districts.

Labourers are in great demand and the rate of wages is continually rising.

There is only one Act XX town in the Dehra Tahsil, i. e., Rajpur at the foot of the hills. It owes whatever importance it possesses to its connection with Mussoorie and is now rather a poor tumbled down looking place.

Act XX Towns and
Marts.

There are no marts of any size in this district. Sahaspur and Anufield in the Western Dun; Raipur, Doiwala and Bhogpur in the Eastern Dun, contain small bazaars, but the real mart for the whole tahsil (except the extreme eastern portion) is Dehra itself.

9. Although from the meagre historical records available, it would seem that in the 17th and early part of the 18th century, the Dun valley was fairly thickly populated, this was far from the case at the time of the annexation of the country by the British in 1814. The plundering expeditions of the Mahratta, the Afghan and the Sikh, coupled with the iron rule of the Gurkha in the first decade of the 19th century had rendered the Dun almost a desert. A rough census taken immediately after the conquest returned the population at 17,000 or thereabouts. In 1823 it had risen to 20,179, in 1847-48 to 32,083, in 1865 to 66,299 (excluding Mussoorie and Landour) while in 1881, just three years before the last settlement the figures were 98,953. In 1891 the population was returned at 1,17,438 while the last census brought it up to 1,27,094, an increase of 28.44 per cent. since the last settlement and of 647.61 per cent. since the establishment of the British rule.

Population.

The density per square mile excluding forests is now 302 as against 247 at last settlement and 445 the provincial average.

10. The population of the Dun may be roughly divided into highland and lowland, and the latter class again into old inhabitants and new-comers.

Caste distribution.

The highland population consists mainly of Hill Rajputs and to a lesser degree of Hill Brahmins, and represents the oldest settlers in the Dun. A menial class, properly termed "Dumra" is also to be found in almost every hill village. These appear to have been originally serfs and correspond roughly to the "kolta" of Jaunsar-Bawar and the "Kamin" of the plains. They are, however, gradually raising themselves in the social scale, and are now usually called *lohars*.

The ancient families in the plains consist mainly of Rajputs, Sarsut Brahmins and Kalals. While certain sub-castes of the first of these three do undoubtedly refuse to associate with their hill confrères, it is not by any means the case with them all. On this point the information given in paragraphs 52 and 53 of Mr. William's Memoir is incorrect. Nauthal, Dubhal &c. are not nicknames, but names of sub-divisions of the main Sarsut sub-caste of Brahmins, derived in most cases from villages in Tehri. Although now holding many of the plains villages in the district,

these Sarsut Brahmans are undoubtedly hill Brahmans in their origin, being the descendants of colonists from Tehri. They are inter-related with many Tehri families and claim to hold certain hereditary offices at the Tehri Court. It is true that they allege that they originally came from the plains to the Court of Tehri, as do also the Rawat Rajputs of Ajabpur, &c., but the evidence on which this claim is based, is of the slightest.

The only real "plains" Brahmans and Rajputs among the lowlanders are certain families of Gaur Brahmans, such as those at Raipur, the Rangars, and the Tonwar Rajputs of Sahaspur of whom Chaudhri Diwan Singh is the representative. The Bishts and Negis are clearly of hill origin. The Kalals, represented now by the inhabitants of Sheola Kalan, Sheola Khurd and a few other villages round Dehra, deserve a passing note. Unlike their namesakes in the plains they disclaim indignant all connection with spirituous beverages whether in the capacity of producer or consumer, though, if report and appearances lie not, their disclaimer in the latter regard is scarcely justified by facts. They are undoubtedly some of the earliest settlers in the Dun and have a proverb :—

Kaulagir ka Nauthal

Sheola ka Kalal

Gbate ka Sal

meaning that they and the Nauthal Brahmans of Kaulagir, a large village near Dehra and the ancient sal trees on the slopes of the Siwaliks are all coeval.

The new comers are, as might be expected, a most heterogeneous lot, and it would take too long to enumerate the various tribes and nationalities to be found among them.

11. The following table shows the changes in the proprietary body of Dehra tahsil within the last 20 years :—

Serial number.	Principal caste of proprietors.	Last settlement.		Present settlement.		Percent- age of increase or decrease.
		Area in acres.	Percent- age on total area.	Area in acres.	Percent- age on total area.	
1	Brahman	41,556	16.18	38,823	14.47	-6.58
2	Mahajan	18,600	7.25	29,223	10.89	57.11
3	Rajput	69,244	26.96	87,932	32.78	26.99
4	European	65,349	26.41	44,355	16.63	-32.13
5	Gujar	6,613	2.58	6,138	2.29	-7.18
6	Khattri	137	.06	1,699	.63	1140.15
7	Musalman	3,617	1.41	8,524	3.18	135.66
8	Others	51,695	20.13	51,592	19.23	-20
Total		2,56,811	100.00	2,68,285	100.00	4.46

The most noticeable feature is the decline in the area held by Europeans. The early hopes of the Dun as a colony for Europeans have not been fulfilled. As the old grantees passed away, their sons or representatives in interest have sold their grants to natives and returned to Europe. Even in the Tea Companies, now-a-days, a large proportion of shares are held by natives of this country. Probably by next settlement there will be scarcely an estate of any size owned by a European.

The Brahman interest has declined slightly. Banyas have more than doubled their holdings, though their entire interest still only represents ten per cent. of the total area.

Rajputs have increased their holding by over a quarter, thanks largely to the extensive purchases of land in the Eastern Dun by the late Chaudhri Shib Ram of Dunga. Chaudhri Shib Ram was one of the most capable and enterprising native gentlemen I have ever met and his untimely death was a great loss both to the Rajput community and to the district at large. The other proprietors do not call for much remarks.

12. The tenantry of the Dun are even more heterogeneous than their landlords and I have not attempted to tabulate any comparative statement of their holdings.

Rajputs and Brahmans form the bulk of the tenantry in the older established portions of the Dun, such as the submontane and hill tracts.

In the plains portion of the district, the castes represented are most varied. Nomad Banjara, deprived of their livelihood by the advent of the railway, low-caste Muhammadan and Hindu immigrants from the neighbouring plains districts, famine refugees, *malis* and men of similar castes imported originally for the tea-gardens and now known generically as Purbyas, sturdy Punjabis seeking a fortune in the new grants opened up by the railway in the Eastern Dun, vagrant Mahras, who are here to-day and gone to-morrow—these compose the motley crowd that forms the agricultural population of the Dun.

There are thus no large bodies of any one caste, which can be singled out as especially good tenants. Market gardening and the other forms of high cultivation are confined chiefly to the Purbyas, especially the *malis*. The Telis and some of the Rajputs make good average cultivators.

In general the Dun tenant is apt to be somewhat slack and apathetic, as compared with his brethren in the plain. This is due partly to the fact that in the Dun tenants are still in many parts at a premium and consequently have less inducement to exert themselves, partly to the fever which attacks so many of the residents in the riverain portions of the district.

13. The revenue-paying (*khalisa*) and revenue-free (*muasi*) mahals of the Dun are for the most part held as single *zamindari*, joint *zamindari* or *pattidari*, and present no complexity.

Land Tenures.
(a) Proprietary tenures.

There are however some *bhayachara* mahals, of which the most important have been evolved in the gradual break-down of the ancient hill tenures in the large villages or rather aggregations of villages that cling to the outer slopes of the Himalayas. This is not the place to trace this evolution, but some account of it may be found in paragraphs 79—82 of Mr. A. Ross's settlement and paragraphs 35-42 of the enclosure to Mr. Daniell's settlement report.

The "Daen" tenures were probably of the same origin (vide Mr. A. Ross's settlement report, paragraphs 83 and paragraphs 327—33 of Mr. Daniell's enclosure to his Settlement Report.) In spite of the remarks in paragraph 30 of the enclosures, Mr. Daniell, on revising his settlement in 1867 lumped the twenty component villages of Gopiwala Daen, into seven mahals, each mahal consisting usually of two or more villages.

For the administrative reasons given in paragraph 17 of my assessment report of the Western Dun, I have with the consent of the landlords, settled each component village separately, as Mr. Daniell originally intended to do.

In addition to these ordinary Khalsa and Muasi mahals, there are in the Dun a large number of grants. These are of two classes:—(1) those held in fee-simple, which were purchased under Lord Canning's Rules of 1861 and 1865, and (2) waste land grants, paying progressive revenue (*Rasa li* grants). Some of these were given out before the mutiny and others have been given out comparatively recently.

The land tenures of the area known as the "Mussoorie Settlement" fall beyond the scope of this report. A full account of them is to be found in the report on them, prepared by Mr. E. H. Ashworth, C.S.

In connection with the cultivating tenures, the only point worth noticing is the position of the old established occupancy tenants of the Dun, i.e. the descendants of those upon whom proprietary rights were originally conferred by Major Young at his *ryotwari* settlement and who subsequently waived them at Mr. A. Ross's Settlement of 1845.

(b) Cultivating tenures.

They have put forward a list of their grievances, on which I have reported at length in enclosure No. 4 to my letter No. 126, dated 31st January 1906 to the address of the Board of Revenue.

It would take too long to recapitulate what I have said there, nor can much be done to remedy such of their grievances as are legitimate, in the present state of the Rent Law. The matter should not, however, be lost sight of, when the Rent

Act next comes under revision. That they have got less than they expected, when they accepted the status of occupancy tenant in lieu of proprietor appears to me incontestable.

Closely connected with this question of the rights of old established occupancy tenants is the curious custom whereby occupancy tenants in the villages in the Dehra Suburban Circle and also in Rajpur Act XX town area build bungalows themselves on their occupancy land or sublet them for building. I have noticed this question in paragraph 8 of my rent-rate report for the Suburban Circle.

System of agriculture.

14. The system of agriculture varies with the class of soil, the different natural divisions of the district and the extent of irrigational facilities.

The highest forms of market garden cultivation are to be found in the Dehra Suburban Circle and adjacent villages.

In the Western Dun, on good well irrigated land the rotation of crops is transplanted rice—frequently of the valuable “*bansmati*” kind—followed either by peas and barley, or if manure is available in sufficient quantities by wheat. Sugar cane is also grown in villages in the Dehra plateau, where the water-supply is abundant and reliable.

Where the soil is poorer, but water plentiful, as, for instance in the *khadar* lands in the river beds, a single crop of transplanted rice is grown.

In the dry stony uplands of both parganas the rotation is, on manured land or where the soil is unusually good, i.e., of the *dakar* (clay) type, coarse rice and wheat, and on ordinary non-manured lands, *tor* (the *arkar* of the plains) followed after a year's interval by a double crop of wheat and *mandua*. In the very worst land, the wheat crop is omitted altogether, as a rule. The *tor* crop is sown, not only as a food crop, but also because it manures and enriches the land.

In the Eastern Dun very fine sugarcane is grown in the fertile villages of the Home Circle near Dehra. In the other plains portion of the Pargana, the premier crop is undoubtedly wheat, which is grown as a single crop on irrigated land. Transplanted rice is grown where irrigation is copious, but is of less account than in the Western Dun.

Tea is grown on manured land of good quality in either pargana but usually, except in the Western Dun, without irrigation. Its mode of cultivation is well known and need not be described.

In the hill villages cultivation is either permanent or fluctuating. The permanent cultivation consists of small fields cut out on the tops or sides of the mountains, elaborately terraced and varying in width with the slope of the hill. These terraced fields are lavishly manured and when water is available or the rains plentiful produce very fair crops. The favorite staples are *mandua* and *sanwak* in the autumn and wheat in the spring. Rice is only cultivated in villages which enjoy mild temperature, and is usually of the type known as *kaul patas*.

The fluctuating cultivation, known as “*khil katla*” consists of small patches literally scraped up on the sides of hills too steep for terracing. Such patches—one cannot dignify them by the name of fields—are cultivated for a year or so and then left fallow, both to recuperate and also for the sake of the coarse grass which springs up in them.

Irrigation.

15. Owing to the stony nature of the subsoil and the great depth at which water can only be reached in the Dun, irrigation from wells is out of the question. All irrigation is consequently effected by means of canals from the many streams and rivers that intersect the valley. These canals fall into two main classes—(a) Government canals, (b) Zamindari canals, generally known as *kuls*.

(a) Government Canals.

Starting from the western extremity of the Dun, we first get the Katapathar canal, which takes off from the Jumna in a village of that name and irrigates the fertile triangle of land lying between the Jumna on the west and the Sahaspur-Ambari road on the east.

Next—but after a long gap of some twenty miles or so—we reach the Bijaipur canal. This is derived from the Tons River and bifurcating at Garhi behind

cantonments into two branches which go by the name of the Kaonli and Shabpur branches, irrigates so much of the rich triangle of land forming the Assessment Circle known as the Dehra plateau, as lies to the west of the Bindal Rao. The land lying between the Bindal and Rispana Raos, the lower part of which contains the Dehra Suburban Assessment Circle and an outlying part of the Dehra Plateau Circle is irrigated by the Rajpur Canal, which takes off from Rispana just under Rajpur. Crossing the Rispana Rao and thus passing into the Eastern Dun, we first reach the Kalanga canal, so called from the proximity of its early headworks to the famous Kalanga Hill. The new intake is however considerably higher up the Song in Tehri territory. The Kalanga canal irrigates a very fertile tract of country, lying between the Song on the north and the Nagaidh forest on the south comprised in the I and II Assessment circles of the Eastern Dun.

From here a long gap has to be traversed, until the last of the Government canals in the Dun is reached. This derives both its water and its name from the Jakhan Rao from which it takes off in the hills above Bhogpur. It irrigates the stony tract of the Fifth Assessment circle of the Eastern Dun.

The private canals are far too numerous to deal with individually. Much ingenuity and no little expense is lavished on their construction and upkeep by the zamindars and tenants of the villages concerned. They fall however roughly into three classes; (1) those derived from hill torrents like the Suarna, the Nun Nadi, the Gahana Nadi &c., (2) those derived from perennial springs, (3) those derived from big perennial rivers like the Asan, the Re, the Song and the Susewa.

(b) *Zamindari kuls.*

Class (1) are the least satisfactory. Dependent on the rainfall, the variations in which they faithfully reflect, the hill streams cannot but be regarded as a precarious source of irrigation. Moreover they are subject to sudden floods, which sweeping down their beds frequently cut away large slices of the rich alluvial land and destroy the very canals which they are supposed to feed.

Class (2) are more reliable—their only drawback being usually the somewhat exiguous supply of water that they afford, especially in the hot weather.

Class (3) are usually not only quite good, but often better than Government canals. They afford a more copious supply of irrigation to the villages affected and naturally at a much lower cost.

CHAPTER II.—FISCAL HISTORY OF THE DISTRICT.

16. A very full and interesting account of the early settlements of the Dehra Early settlements Tabasil is to be found in Mr. Williams' Memoir of the Dun: I shall therefore deal and their effects. as briefly as possible with the subject.

This is the ninth time that the Dun has come under settlement since the British occupation in 1814. It was held under direct management till 1816, when the first assessment was made. Then followed the settlements of 1820 and 1825—the latter by Mr. Shore, who for the first time recognised the malguzars, then known as "thekadars," as identical with the zamindars of the plains. This identity was stoutly denied by Mr. Shore's successor, Colonel Young, who, with the approval of Government, made the decennial settlement of 1830 and the twenty years settlement of 1840 on the ryotwari system. The cultivators of 1830 thus developed at one swoop into full-blown proprietors, the old "thekadars" being relegated to the position of "muqaddam zamindars" with a right to ten per cent. on the Government revenue collected from the new zamindars.

This sweeping reversal of all previous policy not only in the Dun itself but in the Province at large was to a large extent inoperative. The new rights conferred were little understood and seldom claimed: the responsibility for the Government revenue shirked wherever possible.

When therefore Government, acting on the representations of successive Superintendents as to the inaccuracy of Colonel Young's theories, the injustice done to the old zamindars, and the practical inconvenience of the new system, directed Mr. A. Ross in 1845 to revise the settlement, the latter found little difficulty in inducing these

parvenu proprietors to revert to the *status quo*, existing prior to 1830. They were, with a few exceptions, recorded as occupancy tenants.

In 1866 settlement operations had to be started again first under Mr. Manderson and then under Mr. Cairns Daniell. In 1863 the latter submitted proposals for a thirty years' settlement. These were not accepted, mainly because it was then under contemplation to introduce a permanent settlement into the Dun and Mr. Daniell's rates were deemed to be too low for this purpose. In 1867 Mr. Daniell submitted revised proposals. These were accepted, but on the recommendation of the Commissioner and the Board the settlement was only confirmed for twenty years.

None of the first six settlements were conducted on scientific lines. The great difficulty under which these earlier settlement officers laboured was apparently the want of any correct data as to the cultivated, culturable and waste areas. The boundaries of the villages were not laid down till 1888-89, by Captain Brown's survey and then so incorrectly that they had to be revised first in 1847 by Mr. A Ross and again by Messrs. Manderson and Daniell in 1860-63.

A rate of 14 annas 6 pies 6 gandas per acre appears to have been assumed as a fair all round revenue and to have been applied more or less indiscriminately to every class of land. No soil demarcation was carried out and the increases in the jamas appear to be due mainly to actual or assumed extensions in cultivation.

Mr. Daniell's settlement was a great advance on these earlier attempts—a proper system of soil demarcation, assessment circles, and circle rates was elaborated and the assessments worked out on this basis. Forests were also first assessed to revenue by Mr. Daniell, though somewhat unsystematically.

The following table exhibits the minimum and maximum jama of each settlement up to 1866 :—

No. of settle- ment.	Name of settlement officer.	Period of settlement.	Minimum jama.	Maximum jama.	Remarks.
1	Mr. Calvert	1816-1819	11,244	12,050	
2	Mr. Moore	1820-1824	12,966	13,385	
3	Mr. Shore	1825-1829	13,570	13,645	
4	Colonel Young	1830-1839	16,155	16,155	
5	Colonel Young	1840-1847	...	19,264	
6	Mr. A. Ross	1849-1861	20,770	28,116	
7	Mr. C. Daniell	1866-1886	...	31,637	Byotwari. Net jama after deduction of baqa Muqaddam and patwaris fees, &c., originally intended for twenty years but revised in 1847-1849.

Methods and financial results of the expiring settlement.

The Settlement officer.

Duration of settlement proceedings.

Survey and record.

17. A very full and detailed account of the expiring settlement is given in Mr. Baker's Settlement Report and it will be only necessary here to briefly summarize its leading features.

The settlement was carried out by Mr. H. G. Ross, an officer specially qualified for the task. Prior to his appointment as Settlement Officer, he had been for 11 years Superintendent of the Dun and had for four years carried on an experimental farm. His knowledge of the conditions of the district was therefore most intimate: in fact, to use Mr. Baker's words, he started, where most settlement Officers left off.

The district was brought under settlement in August 1883. Mr. Ross took up his appointment in October of the same year, completed the work of inspection, assessment, and giving out the new jamas by 6th April 1885, on which date he handed over office to Mr. Baker. The latter performed the duties of Settlement Officer concurrently with those of Superintendent of the Dun—his permanent post—until settlement operations were finally closed on 31st March 1886.

The boundaries of all villages except those situated in the hills were re-traversed by the qdalite. All villages in which the cultivated area formed a large proportion of the total area were cadastral surveyed on the scale of 16 inch to 1 mile. Where the proportion was smaller, the cultivated area was alone cadastral surveyed, the waste or forest land being filled in by protractions from the 4 inch to the mile professional map. The standard of measurement used was the imperial acre and the local bigha ($5\frac{1}{2}$ bighas = 1 acre). A new record of rights was prepared.

For assessment purposes the Western Dun was divided into four assessment circles :—

(1) The Dehra Plateau, (2) the Submontane Circle, (3) the River Circle, (4) the Hill Circle. In the Eastern Dun no assessment circles were formed.

The soils were carefully demarcated in each village. A complete set of rent rates were worked out for the Western Dun pargana. A full account of the means by which they were deduced is to be found in Mr. Ross's Rent Rate Report for the Western Dun, and subsequent supplementary report printed therewith. They were sanctioned by the Board, and were used (so far as any rates can be said to have been used) by Mr. Ross in his assessment not only of the Western Dun, but also of the Eastern pargana, and hill villages.

In addition to these, Mr. Ross elaborated a systematic scheme of separate forest assessment, of which some further notice will be found in paragraphs 47 and 48 *infra* and which is described at length in paragraphs 26—35 of Chapter IV of Mr. Baker's settlement report.

In the actual work of assessment Mr. Ross paid but little heed to the rates sanctioned by the Board. So far as he went by any principle at all, he appears to have taken the average recorded rentals of the last ten years as his basis. In a few instances he rejected these in favour of the results given by his rates ; on the other hand he frequently accepted assets far below the recorded rental, especially if an assessment on that basis would have produced too large an enhancement. He also made most liberal reductions in the revenue of villages situated in unhealthy parts of the district or exposed to the ravages of wild animals.

In fact his assessments were based on his own personal judgment of the capacities of each village. As might be expected in assessments conducted on these lines, villages, really more or less homogeneous, often got somewhat uneven treatment. Cases of full assessments were, however, rare, and I only found nine instances in which a reduction of the existing *jama* was called for.

The new revenue assessed by Mr. Ross on actual revenue paying villages amounted to Rs. 51,488 (including Rs. 5,436 assessed on forests), against an expiring revenue of Rs. 31,692, an increase of 62 per cent.

In addition to this he calculated that the revenue of waste land grants when they fell in might be raised from Rs. 7,264, the figure at which they then stood, to Rs. 15,687 and he assessed a nominal revenue of Rs. 15,300 on revenue-free and fee-simple grants, being an increase of 72 per cent. on the expiring nominal revenue of Rs. 8,873.

Mr. Ross's proposals were subjected to considerable criticism on the score of undue leniency and want of method, but were eventually sanctioned in view of the very large enhancement actually obtained. The settlement was however only confirmed for twenty years.

In the course of that period many of the large waste land grants have fallen in and been re-assessed, while on the other hand revenue has been remitted on account of acquisition of land for public purposes. In the last year of the expiring settlement, the revenue stood as follows :—

	Rs.
Revenue paying estates	... ... 64,630
Unexpired grants	... ... 4,045
Total	68,675

18. As might be anticipated, a settlement framed on such moderate principles has worked extremely well. The revenue demand has been collected easily and steadily without resort to any of the severer coercive processes. In fact, the only coercive processes issued during the last twenty years have been 496 dastaks.

19. Despite the leniency of the expiring settlement, there has been a considerable amount of land alienation, as the annexed table shows.

Method of assessment.

Working of the expiring settlement.

Transfers.

Statement showing details of transfers of land of the last 18 years, tahsil Dehra, district Dehra Dun.

Fasli year.	Under order of court.										By private transfers.										Number of succession cases.			
	Sale of revenue paying land.					Sale of revenue free land.					Sale of revenue-paying land.					Sale of revenue free land.								
	Number of cases of transfers.	Area and revenue of the property transferred.		Number of cases of transfers.	Area and revenue of the property transferred.	Number of other transfers.	Total number of transfers.	Number of cases of transfers.	Area and revenue of the property transferred.	Number of other transfers.	Total number of transfers.	Number of cases of transfers.	Area and revenue of the property transferred.	Number of other transfers.	Total number of transfers.	Number of cases of transfers.	Area and revenue of the property transferred.	Number of other transfers.	Total number of transfers.					
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1294 to 1299 fasli.	15	Ac.	Rs.	Rs.	49,448	...	Ac.	Rs.	Rs.	621	382	Acres.	Rs.	Rs.	6,484	6,71,471	11	2,684	2,272	1,05,400	676	8	18	1,116
1300 to 1304 fasli.	10	5,998	491	48,619	1	44	44	3,200	4,15	417	17,130	5,382	7,03,740	30	7,041	5,755	1,73,955	557	10	11	1,095			
1305 to 1809 fasli.	14	148	69	4,579	2	39	302	11,000	5,21	400	16,457	5,106	8,98,638	7	487	12,819	544	9	71	1,052				
1810 and 1811 fasli.	19	512	147	23,470	...	...	...	...	19	202	14,730	4,641	8,98,867	7	1,251	1,415	1,47,007	224	2	11	479		
Total ...	58	6,822	1,101	1,26,116	3	136	348	14,200	15,76	1,401	74,140	23,563	26,66,711	55	11,848	9,536	4,88,681	2,001	29	180	3,748			

Compulsory alienations under order of court have indeed been few enough: the average is only three a year for the last eighteen years; but private transfers have been numerous, with a steady rise in the price paid per acre. From 1294 to 1299 fasli the price paid was Rs. 25: from 1300-1304 fasli, the average price was Rs. 41, from 1305 to 1309 fasli, Rs. 54.

These private transfers are due partly to speculation in land, partly to the sale to natives of their estates by European landholders, desirous of returning to England, partly to the increased demand for building sites in the neighbourhood of Dehra and Mussorie. Cases of private transfer to liquidate debts have been chiefly confined to a few large villages belonging to some of the improvident Rajput landowners of the district. The table set out above is to a certain extent misleading; it is only in the Western Dun that a steady upward movement of prices has been maintained: elsewhere the prices have fluctuated according to the quality of estates transferred in each quinquennium.

CHAPTER III.—COMPARISON OF PAST AND PRESENT CONDITIONS.

Areas.

20. The following table, taken from the aggregate statement Appendix I shows at a glance the variations in areas between now and last settlement:—

Period.	Not assessable.					Culturable.					Assesable.					Cultivated.					Total.		
	Total area.	Revenue free.	Unculturable.	Total.	Sal forest.	Groves.	Waste.	Old fal. low.	New fal. low.	Total.	Canals.	Wells.	Other sources.	Total.	Dry.	Total.	Dry.	Total.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Former settlement (1291 fasli.)	2,66,811	*116	1,13,506	1,13,622	35,400	621	6,818	24,883	4,826	36,527	17,784	...	8,540	26,924	44,317	70,641	1,43,189						
Present settlement (1818 fasli.)	2,68,668	...	85,920	85,920	47,822	810	38,884	10,184	5,726	54,794	10,385	...	8,821	19,206	60,018	79,222	1,82,648						
Increase	...	11,757	...	...	12,422	189	32,066	...	900	18,267	...	281	...	15,699	8,581	39,459	...	...	...	...	...	...
Decrease	...	...	116	27,586	27,702	...	...	14,629	...	...	7,399	...	...	7,118	...	...	...	...	...	...	...	...

Thirty-eight acres cultivated.

The total area of the tahsil has risen by 11,757 acres due to corrections from the area book after last settlement. The decrease in column 4 is due (a) to the transference of 12,422 acres sal forest unculturable to column 6 (sal forest assessable) for reasons given in paragraph 48 below. 15,164 acres have also been transferred to column 8. Columns 8, 9, and 10 are of course constantly changing under the operation of the patwaris' rules.

21. The cultivated area has risen from 7,06,679 acres to 79,222, an increase of Cultivated area. 12.09 per cent. The chief actual increase has been in the Eastern Dun, where the cultivated area has gone up from 15,618 acres to 21,955, a rise of 40.57 per cent. Next comes the Hill Tract with a rise from 5,428 acres to 6,430, i.e. of 18.46 per cent. A good deal of this is, however, only fluctuating cultivation.

In the Western Dun the cultivated area has remained almost stationary, with an increase of only 3.58, while in the Suburban circle it has actually fallen from 2,988 acres to 2,521, or by 15.63 per cent., owing to the gradual absorption of arable land in bungalow compounds and building sites.

The dofasli area has risen in every circle and for the whole district shows an increase of 30.89 per cent.

22. The figures for the irrigated area according to the settlement papers are Irrigated area. as follows :—

	From Govern- ment Canal.	From other sources.	Total.
Last settlement ...	17,784	8,540	26,324
Present settlement ...	10,385	6,821	19,206

According to the Canal Department figures the statistics are :—

Last settlement ...	... 17,784
Present settlement ...	... 14,370

The decrease shown in the settlement papers amounts to 7,399 acres or 41.60 per cent.

The causes of this decrease are threefold.

In the first place, the year of settlement was an abnormally wet year, and in consequence the figures of irrigation were likely to fall below those of ordinary seasons.

But this is only a minor cause ; the chief reasons for the decrease are (a) difference of classification necessitated by (b) the increasing shortage of water in the Government canals in the Western Dun coupled with the enhancement of water rates.

We will deal with (a) first.

At last settlement practically every irrigable field was entered as irrigated. The Canal Department figures and settlement figures are identical. In 1902, however, just two years before settlement proceedings began, a new schedule of water-rates (vide G. G. O. No. 993C.W. I., dated the 27th August 1902) was sanctioned whereby the rates for broadcast and transplanted rice were assimilated. The new rates provoked many complaints, the chief of which was that they made no difference between land to which the canal afforded an adequate supply, and land to which it sent a mere driblet of water once perhaps in the whole harvest, or to put it otherwise, between land on which transplanted rice could be sown and that on which it could not be sown.

The complaint on investigation appeared to me to be well founded, and it seemed doubtful whether, if the water supply was not increased or the rates differentiated, it would pay the cultivators to go on irrigating the less favoured land. Much caution was therefore necessary, and I only rated as irrigated, fields which had actually been *fully* irrigated since the new schedule came into force, and which therefore were certain to be irrigated in the future.

But the matter is not solely one of classification. That there is a real shortage in the supply of water to the villages at the tail end of each of the canals in the Western Dun, the Canal Department would, I am certain, be the first to admit. Their figures, it is true, do not show the same decrease as mine do, but this is because they enter as irrigated every field to which any water, however exiguous in quantity may have been conveyed during the year.

My figures and investigations show that in all the villages at the tail end of these canals irrigation has fallen off, while in some it has practically ceased altogether.

The question of irrigation is of such vital importance in the Dun, if anything but the poorest crops are to be raised, that no apology is needed for considering as briefly as the subject will allow, the main causes that have led to this shortage in water supply in the tail end villages and the possible remedies for it. The three canals complained of are (1) the Rajpur, (2) the Bijaipur, (3) the Katapatthar. The areas which these are supposed to irrigate have been roughly indicated in Chapter I, paragraph 15.

The worst offender is the Rajpur Canal. The supply in this canal was never large, but since the expansion of Dehra, it has become more and more utilized for non-agricultural purposes such as flower-gardens, lawns, etc. In consequence the villages to the south of Dehra which we may briefly term the Ajabpur Group, now get practically no water at all in the hot weather. Formerly they produced magnificent sugarcane and now, if guaranteed an adequate and constant water supply, would be the richest villages in the vicinity of Dehra. A scheme for bringing in an additional supply of water from the Kalanga canal across the Rispana at a cost of a little over two lakhs has been submitted by Assistant Engineer of the Dun Canals.

It would bring over 3,000 acres more under irrigation, would pay handsomely, and would restore their former prosperity to these villages of the Ajabpur Group. It is much to be hoped that Government will be able to see their way to the allotment of funds for this project and thus save some of the oldest established villages in the Dun from debt and bankruptcy.

The Bijaipur Canal was designed to irrigate a smaller area than that for which capacity is now needed. The large and growing villages at the top like Garhi get an ample supply : those like Sheola Khurd at the bottom get practically nothing. The widening and regrading of this canal has recently been taken in hand, with the object of providing a better supply of water to the villages at the tail end. This may effect some improvement, but it will not increase the amount of water in the canal ; only provide for its more equitable distribution. The Assistant Engineer has worked out a project for a dam across the Tons, above the headworks of the canal which would cost nearly 3 lakhs and probably double the irrigative capacity of the canal.

The Katapatthar Canal is now very old and leaky and was designed to irrigate a far less extensive area than is now required. In a short time the masonry work will all have to be renewed, and it would be well if advantage could be taken of that opportunity to enlarge the canal, so as to enable it to cope with the increased demand for water due to extensions of cultivation. The extra cost of enlargement would not, I am informed, amount to more than 1½ to 2 lakhs and would be recouped by the enhanced profit from the canal. Every acre then in the triangle between the Jumna, Asan and Sitala Rau would, I am told, be fully irrigable.

Such are the possible means for improving the water supply of the Western Dun. The outlay in the first instance would, doubtless, be large, but the final result would be a considerable profit to Government, and the restoration to prosperity of many a village, of which the proprietors are gradually, owing to the dwindling profits of their property, becoming involved in debt.

If, however, Government does not propose to take any steps towards increasing the water supply in villages where it is deficient, the question of the propriety of a new schedule of water-rates becomes a serious one.

At the time this new schedule was drawn up, it appears to have been assumed that every village got an equal supply of water, and that it was merely a question of caprice on the part of the cultivator whether he grew broadcast or transplanted rice. On such a hypothesis the assimilation of rates for either class of rice was perfectly fair.

But the hypothesis is unfortunately incorrect, and the cultivator who gets water enough to grow rich crops of 'banemati' and the cultivator who receives barely enough to produce a poor crop of broadcast rice, each pays identically the same rate.

Except on the ground that Government is a monopolist and can charge what it likes for the commodity of which it holds the sole supply, the present tariff cannot be defended.

Unless it is intended to allot funds to increase the water-supply, the fair course would be to reduce the present rates in those villages at the tail end of the canals to which an adequate supply of water cannot possibly be brought under existing circumstances.

The above remarks apply almost entirely to the Western Dun. In the Eastern Dun, the Kalanga canal is generally speaking more than equal to the duty it has to perform. In one or two villages at the tail end of the Nathanpur and Miyanwala branches, the supply is a little short and hence in consequence of the classification adopted by me, some decrease is shown. But on the other hand no irrigation, to speak of, has yet been effected from the two new branches—the Nathuwala and Balawala branches. The zamindars have been holding back in the hope that if they deferred taking water till after the settlement their land would be assessed at dry instead of at wet rates.

In the near future there will probably be a very large development of irrigation from these branches.

The irrigation from sources other than Government canals i.e., zamindari kuls [vide Chapter I, section 15 (b)] show a slight increase. In the nature of things, however, no large increase could be expected, as private proprietors and tenants have long ago utilized all the main streams and sources at their command for irrigation.

Zamindari Kuls.

23. Improvements effected by landholders have mostly taken the form of the construction of additional canals or improvement of existing canals, protective works to prevent erosion of alluvial lands, and fencing. Much money has also been expended in many outlying villages on the location of tenants—a precarious form of investment, since if the tenant throws up his holding and absconds, the capital sunk in settling him is irretrievably lost. A few zamindars have also expended money on afforestation or cutting roads in existing forests.

Improvements.

24. The following table compares the chief crops grown at present with those grown at last settlement:—

Chief crops.

Staples.	Former settlement 1291 fasli.	Present settlement 1312-13 fasli.	Increase or decrease per cent.		
				1	2
<i>Rabi.</i>		Acres.	Acres.		
Wheat (alone) ...	28,026	28,365	21.88		
Wheat in combination ...	1,507	448	-70.27		
Barley alone and in combination...	4,178	4,120	-1.39		
Grain, peas and masur ...	2,213	4,731	113.78		
Oats ...	1,568	2,477	57.97		
Miscellaneous ...	4,573	8,057	-33.15		
Total	37,065	42,898	15.74		
<i>Kharif.</i>					
Rice ...	16,287	20,103	23.43		
Millets ...	11,067	14,976	35.32		
Maizo ...	3,191	4,574	43.34		
Tea ...	4,865	5,424	11.49		
Autumn pulses ...	7,701	7,107	-7.71		
Sugarcane ...	1,127	926	-17.83		
Miscellaneous ...	6,436	5,878	-8.67		
Total	50,674	58,988	16.41		
<i>Zaid</i>					
Dofasli ...	267	15	-94.38		
Net cropped area ...	17,327	22,679	30.89		
	70,679	79,223	12.09		

There has been but little change in the general system of agriculture.

The staple crops of the district are still much the same, i. e. wheat in the rabi harvest and rice, millets and pulses, in the kharif. The area under these staple crops shows a considerable increase. The wheat area has risen by 21.88 per cent, chiefly owing to the extension of cultivation in the Eastern Dun, where landlords encourage this crop. The rice area has risen by 23.43 per cent. The most valuable class of rice is that known as "bansmati," of which much is grown for export since the railway opened. The area under millets, of which the chief species in this district is *mandua*, has risen by 35.32 per cent. This is, par excellence, the poor man's food in the Dun. The falling off in the area under pulses is probably to be explained by the fact, that of late years the *tor* (=*arhar* of the plains) which is the chief representative of this class has been afflicted by a mysterious disease which causes it to wither away before it is ready for plucking—or in native parlance "*ugal-jana*." In regard to the origin of this disease, it is a case of *quot homines, tot sententiae*. No satisfactory explanation has yet been found, but the matter is under investigation by the Agricultural Chemistry Departments both of the Local and Supreme Governments.

It is to be hoped that some remedy may soon be found, as the total loss of this crop seriously interferes with the prosperity of many of the dry submontane villages.

Among crops other than staples, it may be noted that of late years there has been an increasing tendency to grow gram and other species of the pea in double-cropped lands. The area under this class of crop has risen by nearly 113.78 per cent.

Sugarcane has decreased by 17.83 per cent. mainly owing to shortage of water in the Government canals already referred to in Chapter I, section 15 *supra*.

The following table shows the rise in value of the staple crops since last settlement: compiled from "Prices and Wages in India":—

	Seers per rupee.	1881 1885.	1886 1890.	1891 1895.	1896 1900.	1901 1903.	Seers per rupee.
Rice	... 11.81=	100	109	124	130	138=	8.87
Wheat	... 18.93=	100	122	127	159	137=	13.78
Mandua	... 21.44=	...	100	116	127	109=	19.66
Tor	... 14.45=	100	80	86	137	141=	10.23

The tea industry has fallen on evil days. The average price has fallen from about eight annas a pound to a little over four annas a pound, and were the Commissariat Department to cease buying, the majority of the smaller gardens would cease to pay at all. It is true that the area under tea has risen from 4,865 acres to 5,424 acres, but the reason of this is obvious. Once given the plant and machinery, the larger the area and output of tea, the more economical will be the working of the garden, subject of course to the limits of effective supervision.

In section 14 of my Rent Rate Report for the Western Dun I dealt at length with the subject of the Tea Industry and recommended it for specially lenient treatment—a recommendation which I am glad to say has been accepted.

25. Proprietary cultivation has risen by 17 per cent. from 15,368 to 18,031. The increase is not very large and is due partly to the extension in the area under tea, which is always shown as *sir* or *khudkasht*, partly to the increase in the families of the older proprietary bodies, such as the Rawats of Ajabpur and Miyanwala, the Kalals of Badripur and similar clans. In some of these villages the greater part of the cultivated area is held as *sir* or *khudkasht*.

Area under proprietary cultivation.

26. The area held by occupancy tenants has declined from 18,828 to 13,890 acres or by 26 per cent.

Area held in occupancy right.

The decrease is considerable. Ejectment cases under section 35 of the old Act and section 59 of the new Act have barely averaged one a year, so that these occupancy tenants must have been got rid of by extra judicial processes.

In such processes, the Banya firm of Nand Lal Partap Singh hold an evil pre-eminence. In most of their villages they have improved the occupancy tenant off the face of the earth. Their modes of boycotting in village Kandauli have been described at some length in para. 16 of the Western Dun rent rate report.

Though they are the chief, they are by no means the only landlords who go in for "freezing out" the occupancy tenant, and it is to tactics of this nature that the bulk of the decrease in occupancy area is due.

A further cause is emigration to the Eastern Dun, where land is cheaper and the soil more productive than in most parts of the older established pargana; while the death of occupancy tenants without heirs also adds its quota to the general result.

The percentages of occupancy holdings to total holdings was 32.90: it now stands at 21.02. The result is arrived at partly by the absolute decline in the occupancy area noted above; partly by the large increase in non-occupancy area owing to fresh land being brought into cultivation in the Eastern Dun.

Statistics, however, perhaps give rather a gloomier view of the case than the circumstances actually warrant. There is a very considerable amount of land held by tenants of over 12 years standing—1,446 acres in all—which would, of course, have been recorded as occupancy land had a regular revision of records been undertaken.

The general condition of the tenantry is fair. The old-established occupancy tenants in the submontane circle have as a rule good *pukka* houses and seem comfortably off. In the Dehra plateau circle and the Home Circle of the Eastern Dun, the tenants are also fairly well housed and their condition resembles that of ordinary plains villagers. In the river tract circle of the Western Dun and in the newer parts of the Eastern Dun, the villagers have a much poorer appearance—as of places speedily run up and liable to abandonment on small provocation.

The tenants also look less well-to-do and evidently suffer from fever and other malarial diseases.

27. The general relation between landlords and tenants are good. The "freezing-out" tactics noted above are mainly employed by *parvenu* landlords. The old Rajput zamindars are as a rule extremely indulgent to their tenants, even if the latter hold occupancy rights. In many places in the Dun, especially in the grants and in the unhealthy portions of the district, tenants are at premium and it pays the landlords to treat them well.

Relations between
tenants and land-
lords.

28. Rents are paid in two ways: in cash for all kinds of crops; in kind for every class of crop except sugarcane.

Rents and rental
system.

A sort of *zabti* rent is also paid in some villages for oats and *chari*.

Caste privileges are not taken into consideration when rents are fixed.

Crop rents are most popular in the Western Dun, where they represent half the total holdings area. The rates vary from $\frac{1}{2}$ to $\frac{1}{3}$ and cannot be said to be severe. The landlords' share is determined by appraisement (*kan*), or if the tenant declines to accept the appraisement by division of the crop (*batai*). Crop rents are no badge of inferiority, and some of the best villages are nearly entirely crop-rented. The reasons for the preference for this form of rental have been discussed at length in para. 19 of the Western Dun rent rate report.

Cash rents predominate in the other circles. In the Eastern Dun there are two rather uncommon systems. One is the "theka" system, by which the tenant binds himself to render so many *sars* per *bigha* in each harvest or the corresponding value in cash. The other is the progressive rent system, chiefly in vogue in the undeveloped grant estates, whereby land is let out on a progressive rental, which often does not reach its maximum till the seventh year. The object of this is, of course, to attract new tenants.

The movement from crop to cash rents has been very marked as the following figures show:—

Total area held by tenants.	Cash rented area.			Percentage of present cash rented area to total holdings area.
	Former settle-ment	Present settle-ment.	Percent-age of increase.	
65,480	27,136	36,472	34.40	55.72

The result has however been arrived at not so much by the conversion of crop rents into cash in the older established pargana, as by the bringing into cultivation on cash rents of totally new land in the Eastern Dun.

A large number of commutation cases were, however, filed during the course of settlement proceedings, and the probabilities are that before the next settlement arrives, a further considerable area will be held on cash rents.

The rents paid by occupancy tenants have shown little or no tendency to rise. In many cases they are still at the figure at which they were fixed just after last settlement. In some villages there have been enhancements since last settlement, but the all round incidence, which then was 2.03, is now only 2.48—an increase of 22.17 per cent.

Non-occupancy rents on the other hand have shown a decided tendency to rise. At last settlement the all round incidence was 3.96. It is now 6.03—a rise of 52.27 per cent. But these figures scarcely give a fair idea of the way rents have risen in some parts of the district. For instance, in the neighbourhood of Dehra in some of the best villages the highest rack rents have reached Rs. 31 an acre. This rise is partly due to the general rise in the level of prices and increasing competition for land in the neighbourhood of a large town, but also in a large measure, I fancy, to the extraneous sources of income, such as carting, &c., which render the tenants of villages near Dehra independent to a certain extent of the actual produce of their fields in any one year.

Nor is it only in the neighbourhood of Dehra that facilities of adding to their income are open to the cultivator. All along the Rajpur and Chakrata roads, particularly the latter, the carting of stores, building material &c., forms a most lucrative source of income to the peasant.

Causes of progress.

29. In the progress of the district the moderate assessment made by Mr. Ross, which left the zamindars free to develop their estates, has played a most important part. Next to this, I should place the rapid growth of the two towns of Dehra and Mussoorie, the economic influence of which as marts for the disposal of grain, dairy and market-garden produce and centres of employment for labour can scarcely be rated too high. Finally, though somewhat late in the day has come the railway; this has facilitated the import of those food-grains in which the Dun is deficient, the export of the finer classes of rice, lime and timber, and has opened up the Eastern Pargana to colonization to a remarkable extent.

The increase in assets due to the extension of irrigation has been nil. The only extension in irrigation works since last settlement has been the construction of two new Branches on the Kalanga Canal, and practically no water has been taken from these as yet.

In the Western Dun where cultivation has to all intents and purposes remained stationary the increase in assets is due almost entirely to rise in rent-rates and also to the enhanced value of *siwai* income, in particular forest produce and lime. In the Eastern Dun, the increase may be set down partly to rise in rent-rates in the villages adjacent to Dehra, partly to the large extensions of cultivation, especially since the opening of the railway. To this must be added, as in the case of the Western Dun the large rise in the value of *siwai* products.

30. The following table compares the recorded assets in 1312 fasli with the recorded assets of last settlement :—

Comparison of recorded assets.

	Last settlement.	Present settlement.	Percent- age of increase.
Cash rented holdings.	Rs. 78,485	Rs. 1,75,758 (actual)	123.94
Grain rented holdings.	65,004	80,928 (average of last 10 years)	24.50
Siwal income ...	26,628	100,384 do.	276.99
Total demand ...	1,70,117	3,38,866 do.	99.20
Collections ...	1,46,575	3,29,257 do.	124.63

With an increase of nearly 125 per cent. in the recorded collections, it is clear that an increase in revenue is fairly claimable. The following chapters will explain the methods of assessment adopted, and will define and justify the enhancement actually taken.

CHAPTER IV. PRESENT SETTLEMENT. Assessment—Financial results.

31. The question of the manner in which the new settlement of Dehra Dun was to be carried out, appears to have been taken up by the Board and Government in the latter half of the year 1901. From the note supplied by the Director of Land Records to the Board it would seem that the Superintendent was consulted, and I understand from the Director that this was the case. But there is no record of the points on which his opinion was sought, nor of the opinion that he gave on them in the Superintendent's office. The Director states that the village maps were not examined either by himself or the Superintendent of Provincial Surveys.

Correction of records.

From the Director's note it would appear that he recommended (a) that no attestation or resurvey was necessary but that (b) the patwaris, who were notoriously inefficient, should be put through a course of instruction in map correction under the nearest Survey Officer and that the maps should be brought up to date in the cold weather of 1903-1904. The Board accepted his recommendations, but most unfortunately by some oversight his second recommendation was not communicated to the District Officer.

When I took over charge of the district in January 1903, the sole papers on the file relating to the approaching settlement (other than certain correspondence dealing with forest matters) was G. O. No. 4151 of 14th December 1901. This was silent on the subject of the manner in which the records were to be brought up to date, and in absence of any definite instructions on the point, I assumed that Government intended to have a resurvey or otherwise make special arrangements for the correction of map and paper, when the settlement actually commenced. It was not till the end of August 1904, that I received any definite and clear intimation that the correction of the maps and papers would have to be carried through by the ordinary District Land Record Staff.

I immediately placed myself in communication with the Director of Land Records and obtained from him the services of a competent instructor. The patwaris were then brought into headquarters to undergo a course of training in map correction from which the final batch did not emerge till the beginning of November.

Correction work was started as soon as patwaris became available and was supervised partly by me in addition to my other work and partly by Babu Gur Prasad, the head clerk, until in December 1904 Babu Brij Lal, the Settlement Deputy Collector, arrived. I then made over to him the entire work of map and khasra correction into which he threw himself with the most whole hearted energy. But even so, what with the inefficiency of the patwaris, the difficulty in procuring amins, the abnormal rainfall

which frequently rendered survey work entirely impossible, it was not till towards the end of January that a regular supply of corrected maps began to reach me. However I managed to complete the inspection of the whole of the tahsil, excepting the hill and suburban tract, of which the maps were not ready, by the beginning of May. This inspection covered an area of 287 square miles. The remaining tracts amounting to an area of 132 miles were inspected in the early part of the ensuing cold weather.

Soil classification.

32. In the plains portion of the district the soil classification was carried out by myself and two soil classifiers acting under my orders: none of the land records staff could at that time be spared from the work of map correction. The soil demarcation in the hill tracts was carried out by selected patwaris, checked by the kanungos and rechecked by myself. Both the soil classifiers I had to employ were strangers to the district. It was unfortunate that I could not utilize the services of the land records staff on the work, as in a place like the Dun, where conditions are so dissimilar to the plains, it would have been more satisfactory and more expeditious to have had this task performed by persons already conversant with the peculiarities of the district. Soil classification in the Dun is not easy. The nomenclature varies in different parts of the tahsil, while owing to the uneven configuration of the land, one seldom gets an extensive block of any one class of soil. Another great hindrance was the incessant rain in the cold weather of 1904-05. From the middle of December to the end of February the rain scarcely ever held off for more than a day or so at a time, and I found it no easy task to make a satisfactory soil demarcation, when in many villages the soil was reduced to a uniform miry sludge and the map-trace had to be held under an umbrella to prevent its being washed out into an unrecognisable blur.

In the plains portion of the district, the classification eventually adopted for natural soils was as follows:—

Raunsili	... A good loam.
Dakar	... A good clay.
Sankra I	... An inferior loam or clay, of little depth and mixed with stones.
Sankra II	... Poor stony soil full of gravel

To these I added one artificial soil *goind*. This is comprised in the small plots (*baras*) attached to each house, and answers to the *Gauhan* of the plains, though it is more restricted in area. It is almost invariably cash-rented, even in villages which otherwise pay grain rents.

The soil classification follows that of Mr. Ross in the main, but with certain important differences. I did not attempt to differentiate this *goind* into *goind-raunsili* &c. as Mr. Ross did. I found that in practice the rate paid for *goind* was uniform whatever the soil might originally have been.

Dakar was restricted to its real meaning of clay soil: the inferior stony loam, which Mr. Ross had also included under this head, being classed as *sankra* I while the better type of loam, some of which had also been classified as *dakar*, was demarcated as *raunsili*.

I further only subdivided my soils into wet and dry, discarding for reasons discussed in paragraph 22 of my Western Dun rent rate report, the finer distinction between ordinary wet land and *kiyari* land which Mr. Ross had employed.

In the Suburban tract I introduced "market-garden" as extra subdivision of *goind* soil, since such land pays enormously higher rates than the ordinary *goind* of that tract. I also had to demarcate "compound" areas (*vide* paragraph 11 of the Suburban Tract Rent Rate Report). In the Hill Tract, the prevailing soil is *sankra* of an inferior type. The classification here was simplified down into dry-*sankra*, wet *sankra* and dry *goind*. I did not demarcate any wet *goind*, as the irrigated areas in the hill villages are generally at some little distance from the village site down the hill.

It is difficult to compare the soil classification of the present settlement with that of the past settlement, owing to the difference in the principles on which the

classification has been worked out, but the following table gives the percentage of each soil to the total area at either settlement and the percentage of increase in each case, so far as conditions admit:—

Period.	Goind.	Ranasi.	Dakar.	Sankra I.	Sankra II.	Com- pound I.	Com- pound II.	Total
1	2	3	4	5	6	7	8	9
Last settlement	Area ...	2,760	10,658	22,783	30,873	...	...	67,068
	Per cent.	4.12	15.88	33.97	46.08	...	...	100.00
Present settlement	Area ...	9,161	15,927	12,292	36,722	10,154	303	84,690
	Per cent.	10.82	18.81	14.51	48.36	11.99	36	100.00
Percentage of increase or decrease.	162.62	18.46	-57.29	20.25		...	...	...

The *goind* area has increased very largely. This is due partly to the foundation of new hamlets and *abadis* or the expansion of existing inhabited sites: partly to the fact that at last settlement the *goind* areas though duly demarcated on the maps were lumped together with ordinary natural soils, when rates were worked out. The object of this was to reduce the assets, of which Mr. Ross had already more than enough. The *goind* area is however perfectly well defined and a set of rent rates with no *goind* rate would be quite incomplete and consequently useless for enhancement or commutation work.

The other differences follow from the alterations in classification explained earlier in this paragraph.

33. The two parganas of the Dehra tahsil were divided up into assessment circles based mainly on similarity of soil and natural characteristics, but with regard also to irrigational facilities, climatic advantages and rental arrangements.

Assessment circles.

The only absolute exception to this rule was the Dehra suburban circle, of which the villages, though not divided from those in the adjacent circles by any natural characteristics, were grouped together on the sole basis of homogeneity of economic conditions arising from their situation either wholly or partially within the limits of the Dehra municipality.

In the Western Dun, Mr. Ross's arrangement of circles was adopted, *exceptis exceptandis*. In the Eastern Dun eight circles had to be formed in order to meet the topographical and economic peculiarities of this tract.

At next settlement, when the big waste land grants have all fallen in and their conditions have assimilated themselves to those of the old revenue paying villages adjacent to them, and when too the development of the Eastern Dun has levelled up all round, it will probably be found feasible to reduce the number of assessment circles. At present I have found it impossible to do so.

The hill villages in each pargana, of which both the physical and economic conditions differ totally from the plains portion of the district, have been lumped up into one circle and assessed on a uniform system.

34. The eduction of standard rent rates in the Dun proved no easy matter. I have discussed this question at some length in my various rent rate reports, particularly in paragraph 22 of the report relating to the Western Dun.

Standard rates.

The rent of a field in the Dun may ordinarily be said to depend on four main factors:—

- (1) Soil.
- (2) Source of water supply, *i.e.*, whether constant or intermittent, copious or exiguous.
- (3) Level of field as affecting the amount of water that can be brought to it.
- (4) Liability to damages by wild animals.

It is obvious that considerations of these kinds must tend to obscure soil rates. But there are further difficulties of a different order.

Occupancy rents have, as has been noted in the preceding chapter, remained practically stagnant: competitive rents round Dehra have been driven up to point, where they are probably not regularly paid from the proceeds of the land. The rents in the tea-gardens are not "genuine" in the technical sense of the word, while in the Eastern Dun the low uniform or low progressive rents in the large grant estates bear no much relation to the varieties of the soil, in respect of which they are paid.

Although therefore the area under cash rents was larger than at last settlement, my task was not much easier than that which confronted Mr. Ross.

(a) Education of cash rates.

My standard cash rates were obtained (i) by a careful selection of typical fields yielding fair and stable rents, which gave representative soil rates of the villages inspected; (ii) by the ascertainment from European and native landlords of their opinion as to what would be fair rates for the inferior and superior soils; (iii) by the tabulation of the cash rates in selected villages of (a) occupancy holdings, (b) holdings of over 12 years standing, (c) holdings of less than 12 years standing.

(b) Education of grain rates.

As remarked in a preceding chapter, grain rents are no necessary badge of inferiority in a village in the Dun, and it was consequently only in three circles that I found it necessary to educe separate grain rates. The grain rent ledgers of reliable patwaris were first analysed; the opinions of respectable landlords as to the produce of various soils obtained. These results were checked with information obtained (i) from notes of rents which landlord and tenant had admitted would be fair for each class of soil, supposing the village to be cash rented, (ii) from the inspection of private account-books, and (iii) by comparison where practicable with the cash rents of selected villages.

A careful collation of the results of these various methods of enquiry, supplemented by information and experience gained in commutation cases and otherwise, produced what I trust are fair standard rates for each class of soil in the different circles into which the tahsil was subdivided.

But it must always be borne in mind that circle rates in the Dun can never be more than norms towards which the village rates will approximate so far and only so far as the varying circumstances of each village will permit.

The necessary modifications that should be made in applying these rates have been noted in the assessment statements of each village.

Area accepted

35. The following figures show the cultivated areas at different periods and the area now accepted:—

	Acres.
Last settlement	... 70,641
Decennial average	... 73,572
Quinquennial do.	... 76,012
1812-18 fasli	... 79,222
Accepted	... 78,425

In the Western Dun the question of area was not one of vital importance. The cultivated area was unusually full owing to copious winter rains. Reductions were made on this account, which were more than counterbalanced by the addition of land thrown out of cultivation either fraudulently or more generally to annoy occupancy tenants. In the Hill Tract, only staple cultivation was assessed, while in the Dehra Suburban tract, a large area of uncultivated land absorbed into compounds had to be included. The Eastern Dun gave the most trouble. The method of treatment varied with each circle and is described at length in paragraph 8 (a) of the assessment report of that pargana. The general principle on which I went was as follows:—Where there had been a slight but steady increase since last settlement, I accepted an area a little below that of the year of verification; where there had been a very large increase of cultivation, but there was no much further room for extension and the assessment of the full area would have produced a crushing enhancement, I took an area slightly above the decennial and below the quinquennial; where the cultivated area was still going up by leaps and bounds and there was ample room for further extensions I took an area

either equal to the quinquennial average or even slightly above it. The net accepted area for the whole district including additions of fallow is 78,425, which is 1.01 per cent. below the recorded cultivated area for 1312-13 fasli (the year of verification) and 7.43 per cent. below the total area in holdings which amounts to 84,717 acres.

This is, I think, sufficiently moderate: but I would further note that in nearly all the villages in the Eastern Dun where I took a full area, I made a very moderate valuation of the assets.

36. The following table compares the accepted non-occupancy rental with the Treatment of non-occupancy rental.
recorded and standard rentals:—

Recorded ...	{	Area ...	... Acres 23,926
		Rental ...	... Rs. 1,44,845
		Incidence ...	... 6.08
Standard ...	{	Area ...	... Acres 23,692
		Rental ...	... Rs. 1,19,737
		Incidence ...	... 5.05
Accepted ...	{	Area ...	... Acres 21,761
		Rental ...	... Rs. 1,16,415
		Incidence ...	... 5.35

As will be observed it is 19.35 per cent. below the recorded rental. The decrease is partly due to the lower area accepted, partly to the rejection of competitive rents that appeared to me unsafe, and in the Suburban Circle of fancy rents, compound rents, and rents paid for shop sites.

In the incidences there is less difference, the accepted incidence being only 11.28 per cent. below that of the recorded rental.

In dealing with the recorded rentals, I accepted them without hesitation if they agreed more or less with the standard rentals, and the village was one of a normal type. If they were above the standard rental, but appeared to be regularly collected and stable I accepted them: if they were below the standard and I could find no adequate cause for this, such as inferior soil, short water supply, damage by animals, insalubrity of climate, I rejected them and substituted the rental at standard or modified standard rates. The standard rates were very moderately pitched and in many cases, the stable recorded rentals exceeded them. In consequence the incidence of the accepted rental is for the reasons above stated somewhat higher than that given by standard rates.

The latter agrees almost exactly with the rate assumed by Government in their forecast of the settlement.

37. The following table compares the accepted occupancy rental with that Treatment of occupancy rental.
actually paid at present and that by standard rates:—

Recorded ...	{	Area ...	... Acres 12,523
		Rental ...	... Rs. 31,198
		Incidence ...	... 2.49
Standard ...	{	Area ...	... Acres 12,383
		Rental ...	... Rs. 44,932
		Incidence ...	... 3.63
Accepted ...	{	Area ...	... Acres 11,650
		Rental ...	... Rs. 35,808
		Incidence ...	... 3.07

Increase per cent. 14.78

The accepted rental gives an incidence of Rs. 3.07 per acre, which tallies almost exactly with that assumed in the Government forecast. The rental accepted only yields an enhancement of 14.78 or in round figures 15 per cent. on the existing rental. This may seem rather low, in view of the large enhancement in revenue, but the following points should be taken into consideration. The increase is really larger than it appears, as the recorded area includes fallow land mostly threshing floors &c., which has been excluded from the accepted occupancy area.

The increase in the incidence is 23 per cent.

A large proportion of the occupancy tenants are to be found in the submontane and hill tracts. These are the poorest parts of the district, in which even non-occupancy rents have risen but slightly. Moreover the occupancy tenants in these

two circles represent the oldest inhabitants in the Dun and deserve especially lenient treatment in view of the fact that their predecessors-in-interest enjoyed the status of proprietors under Colonel Young's ryotwari settlement.

Lastly, following the advice of the Senior Member of the Board, I purposely pitched my estimate of the possible enhancements low, so as to allow a wide latitude to the rent courts. In many cases, these courts may be able to raise the existing occupancy rents nearer the standard rates than I have estimated for. Such cases occurred in several villages of the richer circles in which I decided enhancement cases. But no general and immediate enhancement of the existing occupancy rental to the level of the standard rental was either possible or desirable. It would have crushed out the occupancy tenant.

Comparison of accepted cash rental with recorded collections.

38. The total accepted cash rental thus comes to Rs. 1,52,223. The average collections for the period 1307 fasli to 1311 fasli come to Rs. 1,58,448. The collections may be slightly overstated in some villages, but on the whole they are fairly reliable.

The estimated increase in occupancy rents comes to Rs. 4,610. The accepted rental is 6.64 below the sum of these two and may I think be confidently accepted as a moderate estimate of the true cash rental realisable in the tahsil.

Treatment of sir and khudkasht.

39. The accepted rental comes to Rs. 75,175, against a standard rental of Rs. 84,028. The decrease is due to the smaller area assessed, the incidences being practically the same.

The accepted incidence is 4.62. This is a good deal higher than that accepted for the occupancy area; but in the first place the sir and khudkasht contains a large proportion of very good land. In the second place, very liberal allowances, generally up to 25 per cent, have been granted, which has the effect of reducing the accepted rental by Rs. 8,499 to Rs. 66,676, yielding an all round incidence of Rs. 4.10 per acre.

Treatment of grain rented area.

40. The following table compares the accepted rental with the average recorded rental, the rental recorded for 1312 fasli and the standard rental:—

Average recorded for last ten years.	<table border="0"> <tr> <td>Area ... Acres</td><td>26,062</td></tr> <tr> <td>Rental ... Rs.</td><td>80,928</td></tr> <tr> <td>Incidence...</td><td>3.11</td></tr> </table>	Area ... Acres	26,062	Rental ... Rs.	80,928	Incidence...	3.11
Area ... Acres	26,062						
Rental ... Rs.	80,928						
Incidence...	3.11						
Recorded for 1312— 1313 fasli.	<table border="0"> <tr> <td>Area ... Acres</td><td>28,988</td></tr> <tr> <td>Rental ... Rs.</td><td>93,760</td></tr> <tr> <td>Incidence...</td><td>3.23</td></tr> </table>	Area ... Acres	28,988	Rental ... Rs.	93,760	Incidence...	3.23
Area ... Acres	28,988						
Rental ... Rs.	93,760						
Incidence...	3.23						
Standard ...	<table border="0"> <tr> <td>Area ... Acres</td><td>28,070</td></tr> <tr> <td>Rental ... Rs.</td><td>95,062</td></tr> <tr> <td>Incidence ..</td><td>3.28</td></tr> </table>	Area ... Acres	28,070	Rental ... Rs.	95,062	Incidence ..	3.28
Area ... Acres	28,070						
Rental ... Rs.	95,062						
Incidence ..	3.28						
Accepted ...	<table border="0"> <tr> <td>Area ... Acres</td><td>27,061</td></tr> <tr> <td>Rental ... Rs.</td><td>84,261.8</td></tr> <tr> <td>Incidence...</td><td>3.11</td></tr> </table>	Area ... Acres	27,061	Rental ... Rs.	84,261.8	Incidence...	3.11
Area ... Acres	27,061						
Rental ... Rs.	84,261.8						
Incidence...	3.11						

The accepted rental is 4.12 per cent. above the average recorded rental, but then the area accepted is larger. The incidences are identically the same, i.e., Rs. 3.11 per acre, with which may be compared the rate of Rs. 3.5 assumed in the Government forecast. The accepted rental is 10.13 per cent. below the grain rental recorded for 1312-1313-fasli and 11.36 per cent. below the standard rental.

The grain rent ledgers with some exceptions are on the whole fairly trustworthy in the Dun, though of course they do not lean to over-statement of rents. The average recorded rental may therefore be regarded as a fairly correct moderate account of the zamindar's average rental for the last ten years. The accepted rental, in actual amount larger, owing to extensions in the cultivated area, yields identically the same incidence per acre and is undoubtedly moderate.

Treatment of rent-free area.

41. The rent free area in the Dun is unimportant. The accepted area of 783 acres yields a rent of Rs. 3,228 against a recorded area of 1,219 acres giving a rental of Rs. 5,065 by standard rates. The incidences are in both cases almost identical, i.e., Rs. 4.12 against Rs. 4.16. The rent-free land though small in area contains a large proportion of good land and consequently the accepted incidence is somewhat high.

42. Apart from sal forests (q.v. *infra* paragraph 47) *siwai* income in the Dun is derived from dolomitic (or boulder) limestone collected in the beds of many of the *raos* that intersect the valley of the Dun. With the increased demand from lime consequent on the boom in the building trade, which seems likely to continue, this is a most valuable asset in the income of many villages. Tufaceous limestone has not been assessed, Government having reserved its right to this as a mineral. Siwai income.

The other sources of *siwai* income* are grazing fees, thatching grass, ordinary grass, inferior forest (*kukat*) scrub jungle (*jhari*), which is sold to charcoal burners, bamboos, and also in the hill tracts a kind of gum derived from *semla* trees.

The total income has been estimated at Rs. 11,055. This was based partly on figures in the patwaris' papers, partly on information supplied me by the zamindars, partly on facts brought to my notice by my subordinates, or elicited by personal enquiry from the lessees who had taken contracts of the abovementioned *siwai* products.

43. As stated in paragraph 39 Rs. 8,499 were deducted for proprietary cultivation. Deductions.
(a) Allowances for
sir, &c.

The kind of improvements usually made in the Dun has already been explained in para. 23, Chapter III. At the commencement of settlement proceedings notices were issued to all concerned to file statements and accounts of improvements made since last settlement. (b) Improvements.

Such as were sent in were checked by me when I inspected the villages concerned, but the majority of zamindars could produce no accounts and I had to roughly estimate the cost of the improvement. Generally I accepted the landholder's statement of the cost, unless it appeared to me exaggerated.

The total amount allowed for improvements comes to Rs. 11,533. This was calculated at 7 per cent. on the original cost, so that a capital outlay of not less than Rs. 1,64,757 was allowed for.

In addition to the above deductions, I had in making my assessments to deduct lump sums to allow for damage by wild animals, break downs in private canals owing to the headworks being swept away by floods, loss by the absconding of tenants owing to unhealthy climate &c. &c. These deductions totalled up to Rs. 3,465. (c) Other deductions.

44. The total net assets of the tahsil, excluding sal forest income, come to Rs. 3,04,214-4-0. Net assets.

45. In all revenue-free and fees-simple estates and in most villages owned by well-to-do banyas I assessed at 50 per cent. of the assets: in ordinary prosperous villages, where the enhancement was not very large at from 47 to 48 per cent.; in all the poorer villages and wherever the enhancement was heavy, at 45 per cent. Tea gardens were usually assessed at 40 per cent. under orders of the Board of Revenue, and in the case of several other villages, the circumstances of which were such as to render this course desirable, I recommended that the assessment should be made at that figure. Percentage taken of assets derived from cultivated land and ordinary siwai.

46. The following table shows the enhancement of the actual and nominal revenue on cultivated land and ordinary *siwai*:— New revenue from cultivated land and ordinary siwai.

	Expiring revenue.	New revenue.	Percentages of increase.
			Rs.
Real ...	... 63,082	1,06,174	68-31
Nominal ...	... 12,453	32,079	157-60
Total ...	75,535	1,38,253	83-03

The revenue assessed represents a percentage of 45-45 per cent. of the net assets.

47. There now only remains to relate the method of dealing with the private sal forests, for which the Dun is famous.

Under the Board's orders these assessments have been kept quite distinct from those on cultivated land and ordinary *siwai*, in conformity with the practice adopted at last settlement. Method of assessment of sal forests.

* Note.—These are not assessed when they occur in land already assessed as sal forest.

The question of the proper method of assessing sal forests has been exhaustively discussed in Part III of my Western Dun Rent Rate Report. The subject is necessarily a complicated one and it is difficult to compress the treatment of it into the narrow compass required for a final settlement report.

The possibility of substituting a system of assessment on actuals, i.e., on the actual price fetched by the forest produce when cut or sold, in lieu of making a long-term settlement based on a hypothetical estimate of future profits was examined only to be discarded. The proposal was received with great disfavour by the leading forest proprietors in the Dun and would undoubtedly have opened the door to fraud on the part of the zamindars; to corruption and oppression on the part of the subordinate officials of the district.

The only alternative system is the long-term settlement system. The drawbacks to this system are obvious. The chief are that (1) it is extremely difficult to calculate the profits that will accrue from a forest in the next 30 years; (2) the zamindar has to pay revenue on account of receipts, of which he is not at present actually in enjoyment.

The people were however familiar with the system and it had worked well on the whole, even if Government had lost somewhat by it.

It was therefore decided to adopt this system as devised by Mr. Ross, (see Mr. Baker's Settlement Report, Chapter IV, paragraph 26-37), but with large modifications, so as to ensure that an equitable share of forest income should fall to Government.

(a) Defects of Mr. Ross's system.

The chief defects in Mr. Ross's system were that (a) he looked too much to the present value of the forest, instead of its future value; (b) his classification into stages was far from correct.

(b) Principles of system adopted at this settlement.

The system on which I went was as follows. The present value of an acre of sal forest may be said to depend on the following four factors:—

- (1) Quality of stock, i.e., stage of present growth, and quality of timber, straight, crooked, hollow, &c. &c.
- (2) Density of stock.
- (3) Proximity to market or the reverse.
- (4) Accessibility or the reverse.

Given a fixed value for the various stages recognized under factor (1), it would not, by a careful consideration of factors (2), (3) and (4), be difficult to estimate fairly correctly the present value of a forest.

But as the settlement is for thirty years, we are not concerned so much with the present value of the forests, as with its future value, i.e., the value to which it may attain within that period. This depends mainly on the rate of growth of the timber, which again depends on the soil. Quality of soil must therefore form our fifth factor. Finally, we must be careful to avoid driving private proprietors into reckless felling of timber; in other words we must encourage sylviculture.

The problem therefore before the Settlement Officer in regard to forest assessments is:—*To ascertain the largest amount of income which the proprietor of any given private forest might obtain from his forest within the next 30 years by methods compatible with a due regard for the interest of sylviculture and the maintenance of his forest.*

(c) Application of the above principles.

The concrete application of these principles was carried out as follows:—

From information collected from the Forest Department, supplemented by personal enquiry from timber contractors, forest owners and other specially qualified persons, forests were classified into three stages and a definite value per acre assigned to each stage, as below:—

Stage.	Value.
	Rs.
Class I— <i>karwa</i> and <i>balli</i>	... ... 40
Class II— <i>Tor balli</i>	... ... 100
Class III— <i>Saw timber, karri &c.</i>	... ... 120—200

Density was judged as follows. The forest areas in each village are blocked out into two or three large plots on the field maps, the superficial areas of which are given in the khasra. These plots were inspected and a rough estimate worked out by the Settlement Deputy Collector, which was re-checked by myself, of the true area under sal, after discarding the area occupied by ravines, cliffs, open spaces &c. The method was necessarily rough and ready, but was the only one available, short of a scientific enumeration by the Forest Department.

Proximity was calculated by a system of zones, based partly on distance, partly on the cost of cart hire.

For accessibility no regular tariff could be fixed.

Decision on this point was left to my judgment, and I made very large deductions, wherever necessary.

Encouragement of sylviculture was effected (a) by the deduction of the cost of forest establishment, (b) by special allowances up to 25 per cent.

Briefly, in assessing a sal forest I first decided, from careful inspection, the true area under sal, and the stage to which the forest, (regard being had to its present quality and to the soil), would be likely to attain within the period of settlement. I next calculated out the deductions that ought to be made for distance, inaccessibility and encouragement of sylviculture.

I used the following formula to express my results :—

Let V = total income to be derived by proprietor from forest during period of settlement.

A = annual estimated income.

D = class of forest.

E = area assessed.

F = Deduction for distance.

G = Deduction for inaccessibility.

H = Deduction for sylviculture.

Then $V = (D \times E) - F - G - H$.

And $A = \frac{(D \times E) - F - G - H}{20}$.

The results obtained by these calculations were checked with the results of actual sales of similar forests that had taken place in the neighbourhood. The zamindar's opinion as to the amount that he would be likely to get from his forest within the period of settlement was also taken.

Great moderation was observed in calculating out the estimates of profits, as the succeeding section will show, but this was most necessary under a long term settlement system, if sylviculture was to be encouraged.

Lastly, the income from grazing fees and other sources of *siwai* income was not taken into consideration in forests assessed to revenue. Following the principle accepted in Mr. Ross's settlement, the income derived from these sources was put against the interest which the proprietor loses on the amount paid on Government revenue, at a time when he is not in receipt of any income from his forests.

48. The following table exhibits in a convenient form the results of the forest assessment, and contrasts them with the figures of last settlement :—

Financial result
of forest assess-
ments.

	Recorded area		Area assessed.		Assumed annual assets.					Percentage of assets taken at				
	Last settlement.	Present settlement.	Last settlement.	Present settlement.	Last settlement.	Gross annual profit as estimated at present settlement.	Deduction for encouragement of sylviculture.	Deduction for forest establishment and guards	Net annual profit.	Former revenue.	Proposed revenue.	Last settlement.	Present settlement.	Percentage of increase of revenue.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Ac.	Ac.	Ac.	Ac.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Actual	24,991	35,049	58,467	12,108	14,093	24,189	2,685	4,235	17,219	5,593	8,112	39,69	47,11	45.04
Nominal	10,409	12,773	12,586	5,393	6,902	15,613	1,518	1,725	12,370	2,781	6,040	41,23	48,83	117.19
Total...	35,400	47,822	66,053	17,501	20,995	39,802	4,203	6,010	29,589	8,374	14,153	39,89	47,83	69.00

In order to make this table intelligible some explanation is necessary.

In the first place it will be noticed that the area of sal forest assessed at last settlement is nearly double the recorded area. This seeming paradox is due to the fact that the sal forest was then divided into "culturable" and "unculturable." In the assessment statements of last settlement the only area entered under sal forest was the "culturable" area. But in making his actual assessments Mr. Ross frequently included a large portion of the "unculturable" area as well.

This classification of sal forest into "culturable" and "unculturable" is wholly out of place. We are here dealing with land in its capacity of a "sal forest producer," and not of a crop producer.

Its capabilities or deficiencies in the latter respect are quite immaterial.

I have therefore in my assessment statements transferred the whole area entered in the patwari's papers as "unculturable sal forests" from column 4 (unculturable—unassessable) to column 6 (sal forest—assessable). My total recorded sal area is therefore 47,822 acres against Mr. Ross's 35,400.

Again, Mr. Ross's rates were calculated for the ordinary type of scattered forest, while mine were calculated for closely stocked forests. In forming my estimate of the true area under sal, I have made very large deductions for open spaces, ravines &c., &c. In practice I found that in the plains part of the district the true area under sal was between one-half and one third of the recorded area; while in the hills and more precipitous parts of the submontane tracts it varied from one-third to one-fourth.

The actual area selected for assessment is 17,501 acres which comes to about one-third of the total recorded area. In applying the maxima rates noted in the previous paragraph I have varied them to suit what appeared to me the growth of the forest. Thus for instance if it appeared to me that the forest would only reach the incipient tor-balli stage, I applied a rate of, say, Rs. 70 per acre instead of the full rate of Rs. 100 and so on.

The forests had suffered very severely from the frost of January 1905, and in consequence great moderation was necessary in framing the estimates of the annual profits that would accrue to proprietors.

My gross estimate works out to Rs. 39,802, against Rs. 20,995 assumed by Mr. Ross. But then Mr. Ross's estimate besides being notoriously lenient was only for twenty years and mine is for thirty, a very important point where forest produce is concerned. The gross annual profits have been reduced to Rs. 29,589 or by 25.66 per cent. through liberal allowances for the encouragement of sylviculture and for forest establishment.

The percentage of assets taken on revenue-paying forest land is 47.11 and on revenue free comes to 48.83. The new actual revenue comes to Rs. 8,112, an increase of 45.04 per cent. on the expiring real jama of Rs. 5,593. This is certainly very moderate, but I have purposely pitched my forest assessments low, so as to avoid driving proprietors into premature felling.

The increase in nominal forest revenue is larger, i.e., 117 per cent. But the forest land on these estates was very under-assessed at last settlement.

The total new revenue on forest lands comes to Rs. 14,152, being an increase of 69 per cent. on the expiring total forest jama.

49. The following table gives the total new revenue, as modified by the Board of Revenue and sanctioned by Government:—

Expiring revenue.		Average of owners' canal rate.	Proposed revenue.		Percentage of enhancement.	
Actual.	Nominal.		Actual.	Nominal.	Actual.	Nominal.
Rs.	Ru.	Rs.	Rs.	Rs.	Rs.	Rs.
68,675	15,234	3,783	1,14,286	38,119	68,42	150.22

The total increase in real revenue thus comes to Rs. 45,611 which corresponds fairly closely to the increase anticipated by the Board i.e., between $\frac{1}{2}$ and $\frac{2}{3}$ of a lakh.

The percentage of assets taken for revenue paying land of all classes comes to 44.90 per cent. and on revenue-free and fee-simple to 48.08 per cent. For the whole tahsil the percentage is 45.66.

The increase per cent. in actual revenue is 66.42. In Mr. Ross's settlement the increase was 62.4 per cent. The increase in nominal revenue is 150 per cent. But the nominal assessments at last settlement were extremely lenient.

For the whole tahsil the total new revenue (nominal and actual) comes to Rs. 1,52,405 against an expiring total revenue (including owner's rate) of Rs. 87,642 an increase of 74 per cent.

50. The incidence of actual revenue has risen from 1.06 per acre to 1.63 on forest areas assessed from '10 to '67, on the total assessable area from '60 to '79, and on the total area from '33 to '53. The very large increase in the forest assessment incidences is due to the different method of taking areas for assessment, explained in paragraph 47 *supra*. Incidences of new revenue.

For the whole tahsil the incidences are as follows:—

Cultivated area	...	Former	...	1.07
		Present	...	1.75
Forest area assessed	...	Former	...	.13
		Present	...	.81
Total assessable area	...	Former	...	.59
		Present	...	.83
Total area	...	Former	...	.33
		Present	...	.57

Considering the very large rise in assets and the great development that has taken place in the district since 1885, details of which have been given in the preceding chapters, the enhanced demand, although showing so large an increase on the expiring demand, cannot be characterised as other than moderate.

51. The total amount of this revenue will not be collected at once. Progressions have been granted wherever claimable under the rules. I found that when at last I was able to disabuse the zamindars of the erroneous idea that progressions were tantamount to a series of short period settlements, they raised no further objection to the system. The following table shows the progressive revenues:— Progressions.

	Actual	First five years.		Second five years.		Final.	
		Re.	Re.	Re.	Re.	Re.	Re.
	Actual	93,367		1,04,312		1,14,286	
	Nominal	38,119		38,119		38,119	

This table however does not take account of the fact that there are certain unexpired grants, on which the grant revenue and not the revenue which I have noted as proper, will still be payable for some years to come.

I have therefore had the annexed table prepared which shows the actual revenue payable for each year of the settlement. In preparing it I have assumed that the revenue noted by me as fair will be assessed on the expiry of the grant. I have also assumed, that, as is usually the case, no progressions will be allowed in the new revenues imposed on grants.

Statement showing actual progressive revenues (taking the existing jamas of each rasadi grant till it falls in after the expiry of its term) tahsil Dehra, district Dehra Dun.

Period.		Revenue.
		Rs.
Initial	1906-7—1907-8 ...	89,287
	1908-9—1909-10	92,846
	1910-11.	93,020
Intermediate	1911-12—1915-16	1,03,965
Final	1916-17—1924-25	1,13,939
	1925-26—1935-36	1,14,286

52. The new jamas only come into force this kharif, so that it is impossible to make any statement as to the working of the new settlement.

Working of new settlement.

The assessments have on the whole been well received, though some grumbling is inevitable when so large enhancements have to be taken as has been necessary in the Dun.

The Commissioner's office informs me that 42 appeals have been lodged up to this time, of which 20 have been rejected, 16 dismissed and 6 are pending.

CHAPTER V.—ENHANCEMENT PROCEEDINGS.

Account of enhancement proceedings.

53. A general notion appeared to prevail in the Dun among the less well-informed zamindars that (1) occupancy rents should not be enhanced during the currency of the settlement, (2) that enhancement proceedings should be taken after the new jamas were given out, (3) that the Settlement officer would make the necessary enhancements *suo motu*.

In consequence, not much eagerness was shown in filing applications for enhancement. Before I left 882 suits for enhancement and 704 applications for commutation were filed by the proprietors and tenants respectively, of which I disposed of 1,417 prior to giving over charge. Since then 1,537 more suits for enhancement have been filed, and are being disposed of in the District Courts under orders of the Board of Revenue.

That the settlement proceedings should have given rise to such a large crop of litigation is certainly a matter for regret. But it appears to me an unavoidable necessity. The enhancement in revenue, moderate as it is when compared with the assets, is inevitably large in comparison with the expiring revenue of the taluk. Landlords are therefore anxious to recoup themselves from their occupancy tenants so far as possible. The rents of the latter have, as has been shown above, stagnated ever since last settlement, indeed in some villages since the settlement before last.

The landlord's desire to raise the rents was consequently equitable enough. I suggested on many occasions that the parties should try to settle matters out of court, but the suggestion was not favourably received by the tenants.

Fair rent rates for each village have been noted in every assessment statement, where this was required and especial care has been taken to ensure lenient treatment of the old established occupancy tenants of the Dun.

In almost every case which I decided, the rents fixed by me were accepted without demur by the parties concerned.

It is impossible at this stage of the proceeding, to show by actual statistics how far the enhancements granted have tallied with my forecast. In most villages, up to the time of writing, enhancement proceedings have not yet been taken against the entire occupancy tonantry. Some members of the proprietary body—usually the Banya proprietors—have taken action, while the elder co-proprietors have stood by to see the result before proceeding against their occupancy tenants.

But from my own personal experience of villages in which I have decided a large number of cases, I can say that there was no difficulty at all in working up to the estimate recorded in the assessment statement.

A complete statement of the litigation connected with settlement proceedings will be found in Appendix VII.

CHAPTER VI.—MISCELLANEOUS.

Cost of settlement operations.

54. The total cost of settlement operations has come to Rs. 86,199, including the estimated cost up to the end of March 1907. Of this I have debited Rs. 36,709 to record operations and Rs. 49,490 to actual assessment work. The principles I have followed in making this distribution has been as follows:—

To record work I have debited $\frac{1}{6}$ th of the Settlement Officer's pay, $\frac{2}{3}$ th of the Deputy Collector's pay, pay of the vernacular staff for the months in which record work was in full swing, the total cost of variable establishment. Travelling allowance of Deputy Collector, reproduction of field map and cost of instruments and $\frac{1}{3}$ rd of process-server's and job work. Under other heads as far as possible actual figures have been got out and debited to record work. The balance is the cost of assessment work.

In the Director's note to the Board No. 3489, dated 20th August 1901 the cost was estimated at only Rs. 32,000. I do not know how this figure was arrived at, nor whether it was intended to represent the cost of the Settlement Officer only, or his cost *plus* the cost of settlement operations.

If the former, it has worked out very nearly correct, as my actual pay came to Rs. 33,339 for the eighteen months and twelve days of my period of deputation.

If the latter, it was obviously under the mark. The cost of settlement operations per square mile works out to Rs. 205, which is higher than the cost of the Etah settlement (Rs. 184 per square mile), about the same as that of Bareilly (Rs. 210) and much lower than that of last settlement which came to Rs. 333.

Even so, the cost of the new settlement in comparison with the actual enhancement obtained is undoubtedly high. For this there were two reasons. In the first place, the conditions of the Dun differ widely from those of an ordinary plains district. The surface of even the plains portions is seamed and cut up by rivers and ravines which much impede progress. In the submontane and hill tracts communications are even worse, and often resolve themselves into a mere sort of goat-track, which can only be traversed on foot. Where in a day in the plains a Settlement Officer could comfortably inspect three or four square miles, in the Dun one square mile can often with difficulty be inspected.

The second and chief cause, however, was the protraction of settlement proceedings due to the necessity of bringing the village maps and papers up to date during the period allotted for actual inspection and assessment work. How this came about I have explained in chapter IV, paragraph 31.

Had I been able to start away at once in October 1904 on inspection and soil demarcation work, I should have had no difficulty in completing the entire inspection of the tabsil by the middle of May. In the meantime the majority of the patwaris instead of being all out in the field surveying would have been available for the statistical work in the office required for the rent-rate reports.

With the necessary figures ready by the end of the camping season, the rent-rate reports (of which there would then have probably been only two) could have been despatched early in the hot weather; assessment work could have been carried on throughout the hot weather and rains, the forest re-inspected in the early autumn of 1905, and the assessment reports despatched before the end of December in the same year. The remaining months could have been utilized in giving out the new jamas, distribution work, preparation of memos. under sections 84 and 85 of the Land Act and disposal of enhancement cases, &c.

As it was, it required the most strenuous efforts on the part of myself, Babu Brij Lal, (the Officer in charge of map records correction), and my office to ensure the despatch of the last batch of assessment statements before I gave over charge on the 12th April 1906. All the miscellaneous work indicated above had to be left to my successor and has been disposed of by Babu Gur Parshad, the Settlement Head Clerk, who was created Additional Settlement Deputy Collector for this purpose, under the superintendence of Mr. Hope.

Looking back on the matter with the experience born of eighteen arduous months, I have no doubt whatever that, not only ought the maps to have been brought up to date in the cold weather of 1903-04 as recommended by the Director, but that a regular attestation of records would have been most desirable. It is true that when I was consulted demi-officially on this point in August 1904, I expressed an opposite opinion, but it was then too late to start attestation work with any prospect of completing settlement operations by March 1906. Attestation was, however, certainly needed. The khewats were found to be very inaccurate and have had all to be re-tested just lately in connection with the preparation of memos. under sections 84 and 85 and distribution work. The khasras, khataunis, &c. were also found not only to be full of mistakes, but were encumbered with entries of tenants holding for periods such as 25 years which would all have been

converted into occupancy tenants at a regular attestation. This would have been no mere clerical improvement. It is a matter that affected the assessment statements. In many villages where the non-occupancy rent appeared low in comparison with the standard rates the real reason was found to be that the recorded rental was composed almost entirely of rents paid by tenants of over 12 years' standing.

However, it is little good dilating further on what might have happened under different circumstances.

Indeed I must apologize for the extent to which I have already expatiated on this subject. But the whole course of settlement work proper has been so clogged and hampered at every turn by the tedious task of correcting maps and records *pari passu* with real assessment proceedings, that I felt, in justice to myself and to my subordinates that a clear explanation was necessary of the causes that have led to the protraction of the period and consequent enhanced cost of settlement proceedings in this district.

And this was the more needful as the Member of the Board of Revenue, who was in charge of this settlement and who was consequently fully conversant with all the difficulties that had to be surmounted, has since retired.

The cost of settlement operations would have been recouped in two years had no progressions been granted. The liberality of Government in this direction has been such, that it will now take nearly double that period before the whole cost of operation is recovered.

Lastly, I may note very briefly some other tangible gains from the settlement proceedings, other than the actual enhancement of revenue.

A great improvement has been effected in the accuracy of the maps and village papers. The patwaris who before the settlement were almost entirely ignorant of real survey work, have now gained a very competent knowledge of this branch of their duties. The most inefficient have either been weeded out, or marked down for retirement, so soon as substitutes can be found to replace them, (not, I may add, an easy task in the Dun).

The patwaris' circles have been re-allocated and their number increased. I was able to get off the reallocation scheme just before I left Dehra, and it is now pending sanction.

In addition to this, I submitted exhaustive reports on the long outstanding questions of the grazing rights in the Dun Government forests and of the enforcement of the rights of Government to tufaceous limestone both of which matters are now being satisfactorily disposed of.

Acknowledgments.

55. I am under obligations to many persons for the assistance they have given me in carrying out the settlement of the Dun.

Of my actual staff, I wish first to acknowledge the excellent work done by Babu Brij Lal, the Settlement Deputy Collector. On him, as stated in paragraph 31 devolved firstly the tedious work of arranging for and supervising the correction of maps and records in the field. This, in a mountainous country like the Dun and in weather such as we had from December to March in 1904-1905, was a most onerous task. Then as soon as the advancing hot weather prohibited further outdoor work, he had to decide some 700 disputed cases arising out of correction of the records. His duties were extremely heavy and I cannot speak too highly of the zeal and devotion with which Babu Brij Lal acquitted himself of them.

Babu Gur Parshad, the settlement head clerk, has performed two functions. During the period of my deputation though occasionally employed on executive duties, he was, of course responsible for the entire office work, for the punctual collection and preparation of statistics and for the prompt despatch of all reports. In this capacity he never failed me, though he had to contend with great difficulties due to causes explained above.

On my departure he was appointed additional Settlement Deputy Collector, for the purpose of winding up under the supervision of Mr. Hope, the miscellaneous work detailed earlier in this chapter.

Mr. Hope, to whom the office of Settlement Officer was transferred on my departure on leave, speaks most highly of Babu Gur Prasad's work as Settlement Deputy Collector. If the winding up of settlement operations has taken longer than was originally anticipated in April last, this is due to no slackness on the part of Babu Gur Prasad, who has indeed worked most zealously, but to the delay arising from the necessity of correcting records *pari passu* with settlement work proper.

Babu Gur Prasad has now been working in the Settlement Department since 1892. He has obtained excellent testimonials from all the Settlement Officers under whom he served, the last two of whom—Mr. Hope and Mr. Cox—expressed their opinion of his fitness for the post of Deputy Collector. In this opinion I concur and on my recommendation, he was, as above stated, created an additional Settlement Deputy Collector. The post is however a purely temporary one and when its period expires, Babu Gur Prasad will be left without any substantive appointment. Government is, however, under the rules bound to provide for him. There are at present several vacancies in the cadre of Probationary Deputy Collectors. I have submitted a separate application to the Board recommending Babu Gur Prasad for a nomination to a Deputy Collectorship.

The Board have promised to consider this application along with others next September, and I trust that they may see their way to nominate Babu Gur Prasad and that Government will accept their nomination.

Of the other settlement employés, I wish to mention Babu Sarab Sukh Rai, now Head Clerk, and Babu Binaik Rai, Sadr Munsarim. Both of these did excellent work and I should be glad if places commensurate with their merits could be found for them.

I also desire to acknowledge the zeal and industry with which the rest of my office staff discharged their heavy tale of work throughout the period of settlement. At the close of this settlement these most deserving officials will be practically destitute and I would strongly urge that arrangements might be made for their absorption into the regular line in the district offices of the United Provinces.

The settlement proceedings were supervised throughout by the late Senior Member of the Board, Mr. R. G. Hardy, C.S.I. He was most kind in timing his visits of inspection (often, I fear, at considerable inconvenience to himself) so as to fit in best with exigencies of settlement operations; while his advice and guidance on the many difficult problems that arose in connection with the assessment of this rather peculiar tract, were, of course, invaluable.

To Mr. Hope, the Superintendent of the Dun, my best thanks are due for his courteous and cordial co-operation whenever needed, and for the useful hints which he has from time to time given me on matters concerned with settlement work.

Mr. Hobart-Hampden, late Director of the Imperial Forest School, and Mr. Stevens, Deputy Conservator of Forests, gave me much help in working out my scheme of forest assessments.

I should also like to place on record my obligations to Mr. P. Denehy, Assistant Engineer, Dun Canals, for the promptitude and courtesy with which he has always responded to my demands for information on matters connected with canal irrigation in the Dun.

Lastly, I am glad to take this opportunity of acknowledging the help and assistance I have derived from the leading landowners of the Dun in the discharge of my duties. Prominent among these were Messrs. Mackinnon, who with the readiness they ever display in facilitating the work of Government officers, not only gave me most valuable advice on any points on which I consulted them, but also placed their estate books and accounts at my disposal.

DATED GONDA: }
The 11th January 1907. }

G. R. DAMPIER,

Late Settlement Officer, Dehra Dun.





APPENDICES.

APPENDIX I.

Comparative area statement.—Assessment Statement No. I.

Period.	Total area.	Not assessable			Assessable.												Total.	Remarks		
		Revenue free.	Un-cultivable.	Total.	Culturable.						Cultivated.									
					Sal forest.	Groves.	Waste.	Old fallow.	New fallow.	Total.	Canals.	Wells.	Other sources.	Total.	Dry.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.			
Former settlement	2,56,811	*116	1,18,506	1,18,622	35,400	621	6,818	24,883	4,826	36,527	17,784	...	8,540	26,324	44,317	70,641	1,48,181			
Present settlement (year of verification).	2,68,568	...	85,920	85,920	47,822	810	38,884	10,184	5,726	54,794	10,385	...	8,821	19,206	60,016	79,222	1,82,648			
Increase	...	11,757	...	...	12,422	189	32,066	...	900	18,267	...	...	281	...	15,699	8,581	39,459
Decrease	...	...	116	27,586	27,702	...	...	...	14,699	...	...	7,893	...	...	7,118	...	...	

* Thirty-eight acres cultivated.

APPENDIX II.

Comparative statement of jamas.—Assessment Statement No II.

Expiring revenue including Forest revenue.			Average owner's ratio.	Revenue as sanctioned including forest revenue.						Percentage of increase of the sanctioned revenue on the expiring revenue.	Forest revenue.				Percentage of increase on the forest proposed revenue of the expiring revenue.
				Initial.		Intermediate.		Final.			Expiring.		Proposed.		
Actual.	Nominal.	Actual.	Nominal.	Actual.	Nominal.	Actual.	Nominal.	Actual.	Nominal.		Actual.	Nominal.	Actual.	Nominal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
68,675	15,234	3,733	93,367	38,119	1,04,312	38,119	1,14,286	38,119	61.63	5,593	2,781	8,112	6,040	69.00	

APPENDIX III.

Recorded rent rolls and collections.—Assessment Statement No. III.

Years.	Holdings area.				Total cultivated.	Rental demand of		Siwal.	Total of columns 7, 8 and 9.	Collections including arrears.	Remarks
	Cash.	Grain.	Assumption	Total.		Column 2.	Column 3				
1	2	3	4	5	6	7	8	9	10	11	12
Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Former settlement	...	27,136	30,084	15,873	73,093	70,641	78,485	65,004	26,628	1,70,117	1,46,575
Average of 10 years	...	37,108	26,062	16,752	79,922	73,572	1,57,554	80,928	1,00,384	8,38,868	3,29,257
Present settlement (year of verification).	36,472	28,988	19,257	84,717	79,222	1,75,758	..	...	...	...	...

APPENDIX IV.

Area table and verified rent-roll—Assessment statement No. IV.

Last settlement.		Description.	Number of khasras.	Present settlement (year of verification).									
Area.	Rent.			Cash paying.		Grain rented		Under-tenants.					
				Area.	Rent.	Area.	Rent.	Area.	Rent.				
Acres.	Rs.			No.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.			
15,368	...	Sir	...	1,099 (a)	7,165	...	...	...	Cash ... 610	6,460	
									Kind ... 660	2,569			
									5 un-rented.				
Included in sir.	...	Khudkasht	...	1,735 (b)	10,868	...	...	...	Cash ... 36	270	
									Kind ... 59	243			
15,368	...	Total	...	2,834	16,081	...	...	...	1,370	9,482	
Cash ... 6	16	Exproprietary tenants.		21 (c)	43	247	...	...	Cash ... 3	15	
Kind ... 26	39								Kind ... 2	11			
Cash, 14,967	30,312	Occupancy tenants.		6,893 (d)	12,481	30,951 (A)	1,409	3,524	Cash ... 990	7,569			
Kind, 3,861	9,381					6 un-rented.	...	...	Kind ... 876	3,703	
									3 un-rented.				
Cash, 12,168	48,155	Tenants-at-will		19,924 (e)	23,949	1,44,560 (e)	27,579	84,656	Cash, 1,177	6,951			
Kind, 26,197	55,584			(f)	622	un-rented.	...	...	Kind, 242	1,018	
									8 un-rented.				
57,220	1,43,489	Total	...	26,338	37,100	1,75,758	28,988	88,179	3,296	19,262			
505	...	Rent free for service and favoured tenures.		1,020 (g)	598	...	...	...	Cash ... 84	759	
									Kind ... 43	201			
78,093	1,43,489	GRAND TOTAL	...	30,192	55,729	1,75,758	28,988	88,179	Cash, 2,900	22,024			
									Kind, 1,881	7,680			
									11 un-rented.				

Fallow included in (a) 734, (b) 785, (c) 1, (d) 1,105, (e) 1,518, (f) 87, (g) 126, (h) 108, (i) 1031=5,495 acres.

APPENDIX V.

Comparative crop statement—Assessment statement No. VI.

Year.	Total cultivated area per khasra.	Rabi.							Kharif.							Zaid.	Dofasli.	
		Wheat alone.	Wheat in combination.	Barley alone and in combination.	Gram, peas and mamsur.	Oats.	Miscellaneous.	Total.	Rice.	Millet.	Maize.	Tea.	Autumn pulses.	Sugarcane.	Miscellaneous.	Total.		
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
Former settlement.	270,679	28,026	1,507	4,178	2,213	1,568	4,573	37,065	16,287	11,067	3,191	4,865	7,701	1,127	6,436	50,674	267	17,327
Average of four years.	75,517	27,609	505	4,321	3,144	2,471	2,459	40,509	19,940	12,591	4,147	5,340	7,194	1,048	6,603	56,863	150	22,014
Present settlement (year of verification).	79,222	28,066	448	4,120	4,731	2,477	3,057	42,898	20,103	14,976	4,574	5,424	7,107	926	5,878	58,988	15	22,679

* Includes 38 acres revenue free.

APPENDIX VI.

Assets and revenue.—Assessment statement No. VII.

Soils.	Tenants cash-rented area in acres.			Sir.	Khud-kasht.	Grain-rented.	Rent-free, &c.	Total area.	Valuation.
	Non-occupancy.	Occupancy and exproprietary.	2						
1	2	3	4	5	6	7	8	9	
Goldi	Market garden	56	15	3	28	1	1	104	
	Irrigated	1,460	461	122	247	227	57	2,574	
	Dry	2,309	1,206	366	378	1,226	119	5,594	
Raunsili	Irrigated	9,050	1,193	827	1,964	2,221	65	9,320	
	Dry	1,386	493	1,375	1,879	1,208	85	6,376	
Dakar	Irrigated	2,408	495	370	544	1,832	75	5,732	
	Dry	1,383	699	612	922	2,295	75	5,986	
Sankra I	Irrigated	3,151	750	481	870	2,684	100	8,036	
	Dry	6,283	3,836	1,791	2,494	11,799	354	26,557	
Sankra II		877	2,221	437	668	4,366	120	8,679	
	Total, cultivated	22,363	11,369	6,374	9,994	27,849	1,009	78,958	
Ordinary	Assessable fallow.	1,234	905	619	680	1,131	202	4,761	
	Unassessable	234	140	66	11	18	7	517	
Compound No. I		76	62	78	65	...	6	283	
Compound No. II		19	47	26	65	...	2	159	
Area recorded in holdings	Ac.	23,926	12,523	7,158	10,856	28,988	1,226	84,677	
Recorded-rent	Rs.	1,44,345	81,198	...	...	...	...	...
Incidence	Rs.	6,03	2,49	...	...	...	...	...
Valuation	Rs.	1,19,737	44,932	38,058	50,970	95,062	5,065	...	8,48,824
Incidence	Rs.	5,05	3,63	4,06	4,72	3,28	4,16	...	4,14
Accepted area	Ac.	21,761	11,650	6,550	9,717	27,061	783	77,522	..
Accepted rent or valuation	Rs.	1,16,415	35,848	30,385	44,790	84,261.8	3,228	..	8,14,887.8
Incidence	Rs.	5,35	3,07	4,64	4,61	3,11	4,12	...	4,06
Add for—Land out of cultivation	...	...	...	...	...	...	...	903	1,760
Sal forest	...	...	...	...	...	...	...	17,501	29,589
Ordinary sayar	...	...	...	...	...	...	...	...	11,055
							Total	95,926	3,57,300.8
Deduct for—Proprietary cultivation	...	...	...	...	...	...	...	...	8,499.4
Improvements	...	...	...	...	...	...	...	...	11,538
Other reasons	...	...	...	...	...	...	...	...	3,465
							Net	95,926	3,38,808.4

Proposed incidence per cultivated acre, Rs. 1.75

Former incidence

Percentage of variation

1.07

73.89

Proposed jama (at 45.66 per cent. of net valuation) ... 1,52,405

Old jama (including owner's rate) ... 87,642

* Includes 233 acres cultivated area.

Excludes Government property.

Non-occupancy Sir Khudkasht.

Ac. Rs.

Area. Rent.

19 215 4 8

4 3 8 8

Total.

Ac. Rs.

Area. Rent.

31 215

3 8

APPENDIX VII.

Statement showing number of cases and appeals instituted and disposed of up to 22nd January 1907.

Class of applications or cases.	In the court of the Settlement Deputy Collectors.					In the court of Settlement Officer.					Remarks.	
	Original cases.		Appeals.									
	Total for disposal.	Total disposed of.	Transferred to district court.	Balance.	Total for disposal.	Total disposed of.	Transferred to district court.	Balance.	Total for disposal.	Total disposed of.		
Cases connected with patwaris	83	81	2	4	4	4	2	1	...	...
Boundary disputes	113	6	107	...	4	2	2	1	...	...
Revenue engagements	634	626	8	...	5	5	2	1	...	...
Distribution of assessment or redistribution of land revenue.	221	195	28	5	5	5	1	1	...	...
Cases arising out of the preparation of records.	733	727	6	6	43	43	1	1	...	...
(a) Proprietary right	889	647	242	...	43	43	1	1	...	...
(b) Cultivating right	1	1	1	...	1	1	1	1	...	...
(c) Cesses of rights.	27	17	3	7	1	1	1	1	...	...
(d) Any other matters	1	1	1	1	1	1	1	1	...	...
Rent cases	1,536	3	1,533	...	1,585	1,416	169	...	...	...
(a) Determination of rent of excluded proprietors.	...	...	1	1	...	...	...	...	...	...
(b) Determination of rent of occupancy tenants.	...	...	...	...	...	...	...	...	...	...
Miscellaneous	61	57	2	2	305	195	10	...	12	11	1	
Total	4,299	2,350	1,887	52	1,853	1,672	181	...	12	11	1	

APPENDIX VIII.

Statement showing the charges incurred in settlement.

Year.	Salary of gazetted officers.	Salary of fixed establishment.	Salaries of variable and temporary establishment.	Cadastral survey charges.	Traveling and tentage allowance of officers.	Traveling and tentage allowance of fixed, variable and temporary establishments.	Contingencies and miscellaneous.	Stationery.	Cost of instruments.	Job work.	Total charges during the year.
1	2	3	4	5	6	7	8	9	10	11	12
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs.	Rs. a.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1904-05 ..	21,688 11 8	4,657 1 4	5,392 13 3	...	1,264 8	411 11 9	4,257 10 10	350 0 7	98 3 3	992 14 11	39,103 11 7
1905-06 ..	16,271 6 4	5,977 12 2	6,954 12 1	...	509 8	117 9 0	3,176 15 5	261 5 0	142 13 0	2,059 0 8	35,471 1 8
1906-07 (October to March.)	1,225 0 0	2,319 0 0	3,060 0 0	...	550 0	75 0 0	2,038 0 0	28 0 0	...	2,329 0 0	11,624 0 0
Total ...	39,185 2 0	12,953 13 6	15,407 9 4	...	2,814 0	604 4 9	9,472 10 3	639 5 7	241 0 3	5,380 15 7	86,198 13 3
Assessment work.	28,133 5 0	9,605 8 1	5,460 14 9	...	939 8	340 6 0	3,128 10 8	87 8 2	...	1,793 10 6	49,489 7 2
Record work	11,051 13 0	3,348 5 5	9,946 10 7	...	1,374 8	263 14 9	6,343 15 7	551 13 5	241 0 3	3,587 5 1	36,709 6 1



सत्यमेव जयते

ORDERS OF GOVERNMENT.

No. 3064
1-62F OF 1907.

RESOLUTION

REVENUE DEPARTMENT.

Dated Allahabad, the 7th November 1907.

READ—

Letter from the Secretary to the Board of Revenue, United Provinces, no. 2606N.
I-326B. dated the
16th September 1907, submitting the report of Mr. G. R. Dampier, I.C.S., on the revision
of settlement of the Dehra tahsil of the Dehra Dun district, with a review thereof by the
Board of Revenue.

OBSERVATIONS.—The Board's review sets forth clearly and succinctly the main features of the advance in prosperity in this tract since the last settlement, and the methods and results of the present revision. The last settlement, made by Mr. H. G. Ross in 1883 to 1885, was a lenient one, and, though not conducted according to the principles now approved, has, owing to the intimate knowledge of the district which he possessed, worked well in practice. The progress since made in the development of the tract has justified the decision to confirm that settlement for a period only of twenty years. The difficulties which Mr. Dampier has had to cope with in working out standard rates and in estimating the weight to be given to the various factors which had to be considered in the assessment of individual villages have been described by the Board : and the Lieutenant Governor agrees with them that the Settlement Officer has carried out his task with good judgement and tact.

2. It is satisfactory to observe that in the past twenty years compulsory alienations of land under order of court have been extremely few, and that private transfers caused by debt have been confined to a few villages.

3. The questions relating to the schedule of water rates introduced in 1902 and to the improvement of the supply of water from the canals, discussed in paragraph 22 of the Settlement Officer's report, will be considered in the Irrigation Department of this Government.

4. The Settlement Officer in paragraph 13 of his report refers to the alleged grievances of the old established occupancy tenants of the Dun, on which he has reported at length to the Board. These tenants have been leniently treated in the recent settlement, but the Lieutenant Governor would be glad to have the matured views of the Board on the subject. In their review they say that they are not certain that it would now be possible to discriminate such tenants or give them any special status ; but the matter deserves further consideration.

5. The settlement is confirmed by the Lieutenant Governor for thirty years, to expire on 30th June 1936, except in the case of the village of Kandauli, which for special reasons is settled for three years

only ; and, as recommended by the Board, the settlement of pargana Jaunpur Bawar, the revision of which it has been decided not to undertake, is extended by thirty years, to expire on 30th June 1934.

ORDER.—Ordered that a copy of the above resolution be forwarded to the Secretary to the Board of Revenue, United Provinces, for the information of the Board.

By order &c.,

J. M. HOLMS,

Chief Secy. to Govt., United Provinces.



